

Straight Talk
By 4 Class I RR Presidents—p. 9

Special Report: Upgrading Cars . . . p. 40

RAILWAY AGE

APRIL 1, 1957 • THE INDUSTRY'S NEWSWEEKLY



Men Who Build the Future of American Railroads

"Perhaps the most encouraging thing about the outlook for the future of American railroads is the unmistakable evidence of a greater infiltration of youth at all levels of operations. Youthful vitality and imagination is the catalyst that, combined with modern equipment and the accumulated wisdom of experienced personnel, will permit the railroads to realize fully the promise of accelerated growth in the years ahead.

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Southern Pacific

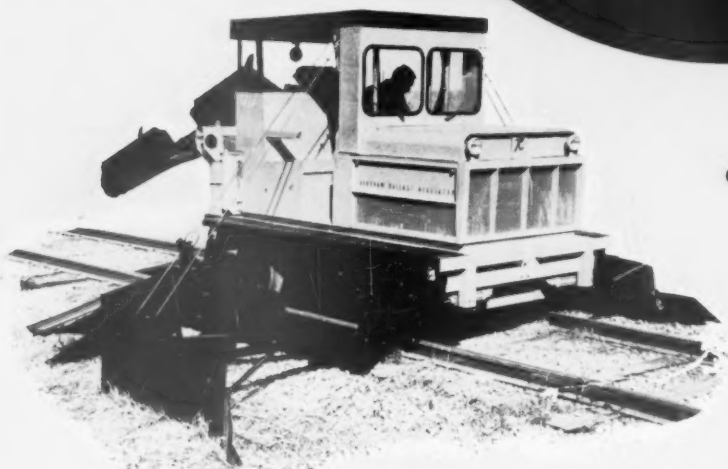
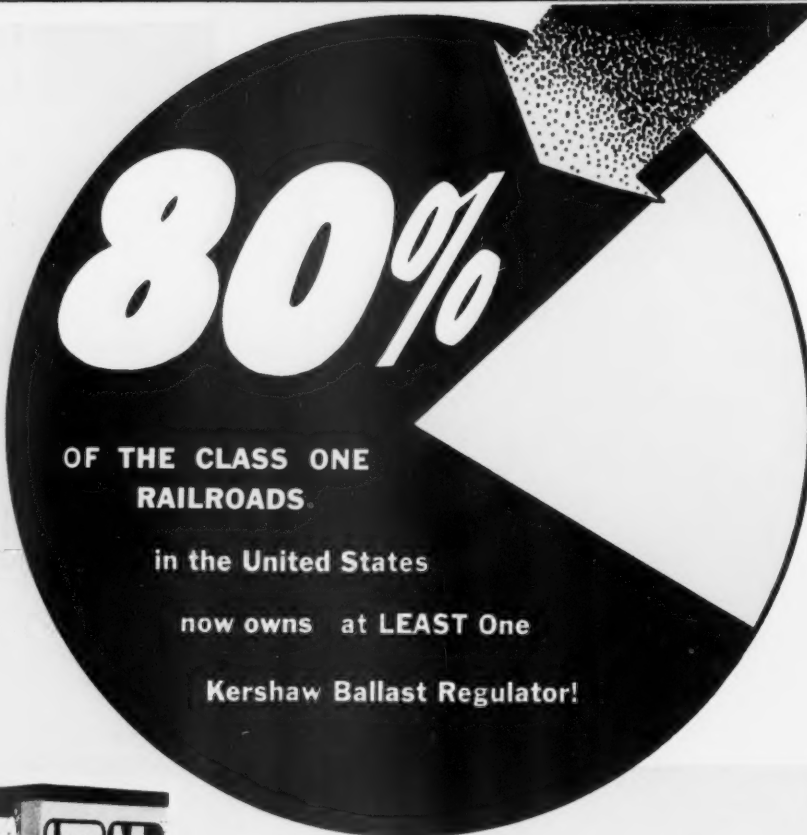
Characteristic of youthful vitality and imagination on the Southern Pacific is the fact that modern General Motors Diesel locomotives have played an important part in the outstanding record of this railroad in recent years.

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LAGRANGE, ILLINOIS • Home of the Diesel Locomotive
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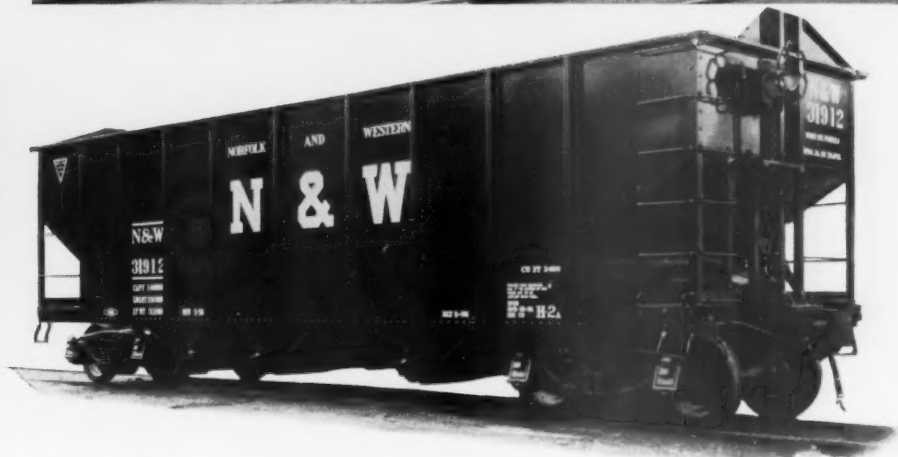
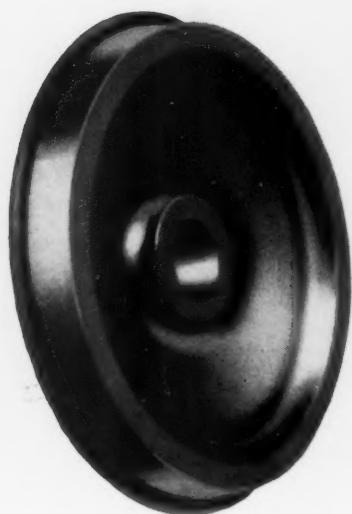
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ALABAMA



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Illustrated here are three modern types of Bethlehem cars that have been placed in service by prominent Eastern railroads. Each incorporates many advances in car design and construction. And each of them is equipped with multiple-wear Bethlehem wrought-steel wheels instead of the conventional one-wear type.

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Power operation of yard switches with the **UNION NA-15 Switch Machine**

Saves Time and Money



UNION NA-15 switch machine . . . provides fast, efficient operation in all kinds of weather. Air is used only to push toggle mechanism past center.

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You can step up yard efficiency and obtain greater flexibility of operation by power-operating your busy yard switches. The UNION NA-15 is an electro-pneumatic toggle-spring switch machine designed especially for centralizing the control of yard switches . . . in classification, receiving, departure and flat switching yards.

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DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

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CONTENTS and Week at a Glance

'Let's not be content' p. 9

Four railroad presidents, targeting the industry's key problems, drove that message home in New York Railroad Club Presidents Night addresses.

Half a million more cars needed p.10

And they're needed within five years, a vice-president of Robert Heller & Associates consulting firm maintains. He worries, though, how the railroads can finance them all. He also calls for modernization, mergers and more good management.

Upgrading railroad rolling stock . . .

is the theme of another Railway Age special report that silhouettes the major sore-spots of this endless industry problem. In this issue—three plain-talk articles on . . .

Keeping 'grade A' cars grade 'A' p.40

It's just not practical to build cars that won't show wear, but modern construction keeps new cars in top shape longer. Who is to blame, then, for the procession of new cars on a . . .

Fast ride to the rip track? p.42

Loading and unloading by customers does much of the damage to car interiors, but contaminating high-grade cars with low-grade lading is the railroads' own handiwork. The picture is complicated because . . .

Shippers aren't easily pleased p.43

A large—and articulate—segment protests that railroad upgrading is inadequate.

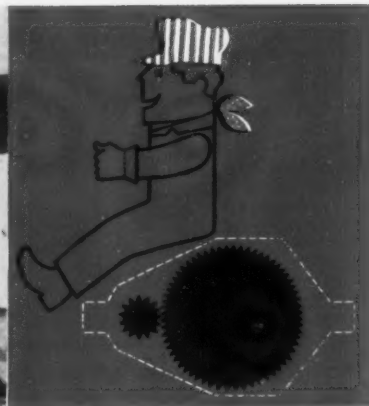
Tailored terminal keeps auto parts rolling p.44

The Wabash and the Ford Motor Company shifted into high and built a new freighthouse to burst a bottleneck at Detroit. Here's how.

How to pinpoint hot boxes p.47

A new detector that reacts to infrared rays may be the long-

PROVED! **DEPENDABLE TRACTION** **MOTOR GEAR LUBRICATION** **FOR OVER 6 MONTHS** **WITHOUT GREASE ADDITION!** **NEW ESSO** **ARAPEN GEAR LUBRICANT**



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New Esso Arapen Gear Lubricant is another exclusive development of Esso Research. For further information and technical assistance in the use of Arapen Gear Lubricant, call your local Esso office, or write: Esso Standard Oil Company, Railroad Sales Division, 15 W. 51st Street, New York 19, N. Y.



RAILROAD PRODUCTS

Current Statistics

Operating revenues, one month	
1957	\$855,565,473
1956	831,707,466
Operating expenses, one month	
1957	\$688,578,802
1956	661,569,057
Taxes, one month	
1957	\$86,726,000
1956	85,261,302
Net railway operating income, one month	
1957	\$58,266,229
1956	62,724,641
Net income estimated, one month	
1957	\$44,000,000
1956	47,000,000
Average price 20 railroad stocks	
March 26, 1957	88.48
March 27, 1956	106.19
Carloadings revenue freight	
Eleven weeks, 1957	7,246,720
Eleven weeks, 1956	7,557,987
Average daily freight car surplus	
Wk. ended Mar. 23, 1957	7,105
Wk. ended Mar. 24, 1956	4,170
Average daily freight car shortage	
Wk. ended Mar. 23, 1957	1,526
Wk. ended Mar. 24, 1956	4,873
Freight cars on order	
March 1, 1957	111,965
March 1, 1956	141,437
Freight cars delivered	
Two months, 1957	15,477
Two months, 1956	9,080
Average number railroad employees	
Mid-February 1957	988,664
Mid-February 1956	1,041,458

ADVERTISING SALES DEPARTMENT

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C. W. Merriken, J. S. Vreeland, vice-presidents, F. T. Baker

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IES 50c, EXCEPT SPECIAL ISSUES. CONCERNING
SUBSCRIPTIONS WRITE R. C. VAN NESS, CIRCUL-
ATION DIRECTOR, 30 CHURCH ST., NEW YORK 7.

Week at a Glance CONTINUED

sought-for means to ferret out journal trouble before it's too late.

Action Page—When to order cars? p.58

Reliance on moral rather than economic incentives may be the cause of recurring freight car shortages. Stronger stimulants than optional ownership and uniform per diem rates seem necessary to spur some roads on to build up their car fleets.

SHORT AND SIGNIFICANT

Track-car operating rules . . .

would have to be filed with—and approved by—the ICC if Congress enacts legislation proposed in identical bills introduced last week. Two of these are sponsored in the House by Representatives Harris of Arkansas and Wolverton of New Jersey. Senator Magnuson of Washington is sponsor of a like bill in the Senate.

Guarantee on car-truck springs . . .

has been announced by Alco Products. Free replacement in case of breakage within 10 years of date of manufacture is offered on its standard AAR-design springs, except those on brine reefers.

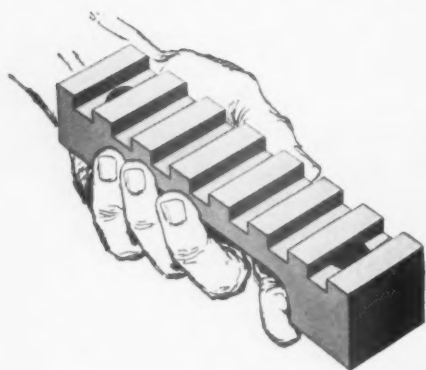
Blizzards hit the Great Plains . . .

last week, blocking main lines of the Rock Island, Santa Fe, Missouri Pacific, Union Pacific and Fort Worth & Denver. Among "name" trains stranded by drifts were the "Colorado Eagle," "City of St. Louis," "Golden State" and "Grand Canyon Limited." In some cases passengers were removed by bus. Freight services were widely disrupted until detour routes could be set up on lines less affected.

Hertz car rental facilities . . .

were available at 144 railroad stations in 1956, compared with 42 in 1944, says the company's annual report. Hertz's 1956 operating revenues, net income and per share earnings were the highest in the firm's history.

Improve the efficiency of any journal lubricator with Magnus R-S JOURNAL STOPS



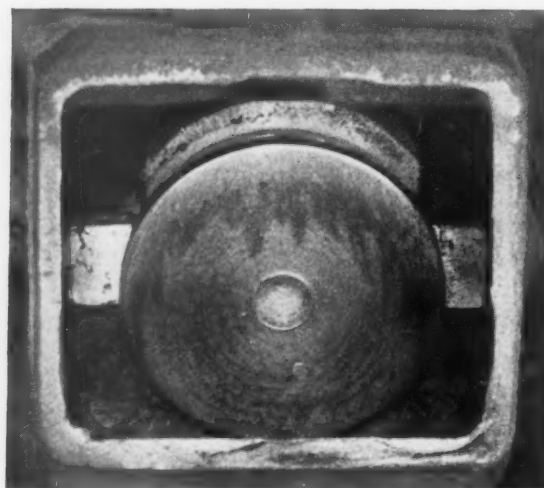
Longer bearing life and lower maintenance costs for trucks and journal boxes also yield big return on initial R-S Journal Stop investment

WITH conventional waste packing and Magnus R-S Journal Stops, you can run freight cars for *three years* between periodic servicing. That's been established by test experience to date.

Bolted to both sides of the journal box, the bronze bearing-metal Journal Stops form a permanent, built-in waste "container" that holds the mass of packing right where it belongs, even under severe braking and impact forces. And, unlike any other waste container or retainer, by keeping the bearing on the journal, you prevent short strands from being trapped beneath the bearing crown. By restricting fore-and-aft movement of the journal within the box, they prevent squashed-down waste packs, maintain constant journal-to-packing pressures, assure a uniform feed of oil to the bearing and eliminate danger of waste grabs.

But that's not all. You also get longer bearing life and freedom from spread linings. You reduce the requirements for an effective box rear seal and increase the efficiency and service life of present dust guards and seals. That's vital to the successful operation of most waste substitutes.

Pad and mechanical lubricators benefit too. By keeping



Here's proof of Journal Stops' unique ability to hold packing in place even under extreme service conditions. This unretouched photograph shows the interior of a Journal-Stop-equipped box after undergoing an 11½ mph flat-switching impact test. Waste is still firmly seated under the journal.

the journal in its proper position, you keep the box from rising during impacts and braking — don't crush the lubricator or seal. Axle dust guard seats can't be scored either.

WHAT ABOUT COST? One private car line estimates it has recovered more than 90% of the total cost of Stops and installation in just the first 20 months of operation. Other roads report comparable savings. R-S Journal Stops not only pay for themselves in reduced maintenance costs. They get cars to destination with trouble-free journal boxes. Write for complete information. Magnus Metal Corporation, 111 Broadway, New York 6 or 80 E. Jackson Blvd., Chicago 4.

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Subsidiary of **NATIONAL LEAD COMPANY**



FOUR RR PRESIDENTS URGE . . .

'Let's Not Be Content'

"Build-it-yourself" or "buy foreign" could become slogans of railroad economy, Lackawanna President Perry M. Shoemaker has warned the railroad supply industry.

By those or some other means, he maintains, railroads must break loose from the inflationary corkscrew of prices spiralling steadily out of reach.

Mr. Shoemaker delivered this "dangerous" message, as he called it, at the Presidents Night meeting of the New York Railroad Club March 21 in New York City.

Railroad refusal to be content with things as they are—or have been—might have been the unofficial theme of the meeting, as Mr. Shoemaker was joined by these other rail chief executives in provocative addresses:

- **E. T. Moore**, president, Central of New Jersey, who called for "new dimensions" in selling the railroad story to the public and in selling rail services to shippers.

- **W. Arthur Grotz**, president, Western Maryland, who advocated merchandise freight trains run on passenger train schedules and using "the freight equivalent of the Budd train" to preserve more than bulk cargo business for the industry.

- **E. Spencer Miller**, president, Maine Central, who cautioned that economic theories must be made compatible with reality, noting that his road's service deteriorated through too much holding of trains for tonnage.

"When the economic chips are down," Mr. Shoemaker told the supply industry men in his audience, "you as business men expect us to find a way out." Economy in rail operation and maintenance depends on wage and material costs, he stated, but, because the railroad service "selling price" is limited, material costs are outstripping the carriers' efforts to maintain the financial pace.

Wholesale prices in general are up 56% from 1946, Mr. Shoemaker said, while the prices for railroad materials are up 78% in the same span. Using a cost index based on the years 1947-1949, Mr. Shoemaker said rail material and general wholesale prices

were about equal in 1950 (at 105) but now stand at 134 for railroad supply prices—122 for wholesale prices.

The Lackawanna president then detailed the railroad materials cost picture, quoting the percentage increases on some 15 different items over the last five and 10 years. Price increases in the decade ranged from as little as 21% to as much as 105%, 124%, 126% and 144% for various items.

He challenged railroad suppliers to indulge in "self-analysis" to see if they are doing all they can to keep the prices of their products as low as they can.

He said he "deplores" a statement attributed to a supplier that, because railroads make up less of his sales market now, he must increase his profit margin on what is sold to them.

The supplier-railroad relationship, Mr. Shoemaker stated, must be an active partnership marked by "mutual understanding." If this picture changes, railroads must look elsewhere for solutions to their problems. This could bring on, he said, the

mutually unhealthy expedient of self-manufacturing some articles or buying "in foreign markets." Sales pressure from abroad exists right now, he went on, noting that a non-railroad company recently saved \$1 million by accepting a foreign bid.

Railroads, he said, are doing the utmost in mechanizing their operations to cut their costs, but he asked if the most modern manufacturing techniques are being used by railroad suppliers. Pointing up this angle, Mr. Shoemaker said that the Lackawanna's own supply and wage costs have climbed 80% in the last 10 years while track maintenance costs are up just 8% and costs of locomotive repairs are down 30%.

This he attributed to the road's use of mechanized equipment without which "we'd be bankrupt today."

Railroad sales campaigns confined to asking "What can we do for you?" are obsolete and inadequate but such techniques are still common, Mr. Moore asserted.

Faced by increasingly tough competition, he said, railroads "haven't



New Reading Span Bridges the Schuylkill

Reading freight moves over new 771-ft Shepps Dam Bridge which replaces 56-year-old span near Reading, Pa., on Schuylkill river. New structure cost \$1,525,000 and is 12th longest on

the railroad. Completion of bridge winds up replacement program launched by Reading after World War II involving reconstruction of five major structures near Reading.

met the challenge and are not yet equipped to meet it."

Traffic salesmen must inform themselves better on the services they are trying to sell and be more aggressive in shaping rail service to meet customer needs. Primarily, Mr. Moore said, a salesman must find out what the individual shipper needs.

On the broader issue of selling the railroad story, Mr. Moore said that "complaining about being mistreated gets us nowhere." He claimed that "too little time and ingenuity" are devoted to getting out from under inequitable competitive restrictions including those of over-regulation, one-sided subsidies and unfair taxes.

"New performance yardsticks" are needed, Mr. Grotz said, to help railroads evaluate their service. "The whole time elapsed," he said, "between completion of loading a freight car or trailer and its placement at destination ready for unloading will determine in the next 10 years whether railroads will be carrying anything but bulk commodities."

Increasingly differentiated service between bulk commodity movements and "short, frequent merchandise trains" is vital, he said. Superhighways compel freight service on passenger-train schedules "without intermediate classification," Mr. Grotz declared. "The latter may mean extremely short trains—the freight equivalent of the Budd train"—possibly 10-car trains.

NO SUBSIDY FOR TILFORD—HE'D BOOST CAR RENTS

Opposition to Mr. Grotz's plan for federal aid to build up the freight car fleet has been voiced in another quarter—by Louisville & Nashville President John E. Tilford.

"It's government subsidy" no matter how you look at it, he told the New York Society of Security Analysts March 22. "And I think it would be a mistake. It would be a step toward nationalization of the railroads," he asserted.

Mr. Grotz had discussed this possibility in his *Railway Age* article. He stated that it would be a calculated but worthwhile risk to invite "a camel to stick his nose into the tent"—and run the danger of the beast proceed-

ing to "wholly occupy" all the space.

Rather than resort to subsidies, Mr. Tilford declared, railroads should impose "adequate" car charges that would make car ownership more economical than rental for those roads which he said do not own enough cars now.

And what about the railroads' competitors? Mr. Tilford asked. "What do you think the truck lines are going to say? And how about the barge lines?" Won't they demand similar supports? The L&N president asked. "You're going to have a government-supplied fleet," he warned, and this is the approach to eventual nationalization.

Such trains, the WM president said, should seek "to meet a specific need. The tremendous future of total transportation should amply justify designing appropriate equipment for such service—possibly smaller units of shipment than boxcars . . . possibly containers or semitrailers."

Mr. Grotz also raised again some of the issues he discussed in a signed article in *Railway Age*, Feb. 11, p. 30, "Do Rails Need Federal Aid?" A bold program involving tax relief and credit allowance is needed, he said, to offset such federal undertakings as the new highway program with its benefits to rail competitors.

Mr. Miller also hit at this issue, stating that railroads, despite their "built-in efficiency," must compete in an "unreal atmosphere" produced by subsidies to other transport modes.

Mr. Miller also took issue with some rail practices. His road, he noted, long took pride in fast and dependable freight performance. When costs rose, though, the road's operating people imposed long train theories and practices, and erratic schedules resulted at the cost of business. Time alone, he said, will not correct such failures and railroads must act promptly if they are to stay in business.

500,000 More Cars Needed, Says Heller VP

Normal refinancing will be 'strained to the hilt' to provide 300,000 of the cars, he says, and about \$1½ billion more will have to be found to make up the difference.

The economic situation of railroads is alarmingly poor, says Laurence T. Mayher, vice-president of Robert Heller & Associates, management consulting firm which has been making organization studies of the Association of American Railroads.

Mr. Mayher drew attention to the large needs of railroads for new capital in a review of the situation of the industry presented to the American Society of Planning Officials at San Francisco on March 18. He made it clear the opinions expressed were his own and not those of the railroads.

"Railroad earnings are inadequate and they are in great need of new capital," he said. "We estimate that they should procure over 500,000 freight cars of all types in the next five years. Normal refinancing will be strained to the hilt to provide 300,000

cars. About a billion and a half dollars of additional capital will have to be found to make up the difference.

"Without freight cars the railroads cannot do business, but freight cars are only part of the problem. Need for capital to complete the modernization of our railroad system is one of the most serious problems in our present economy. Railroads have spent billions in the postwar period in improving their facilities. They have been progressive in taking advantage of new techniques. With adequate earnings

and capital they will continue to do the job that has to be done and that they know how to do."

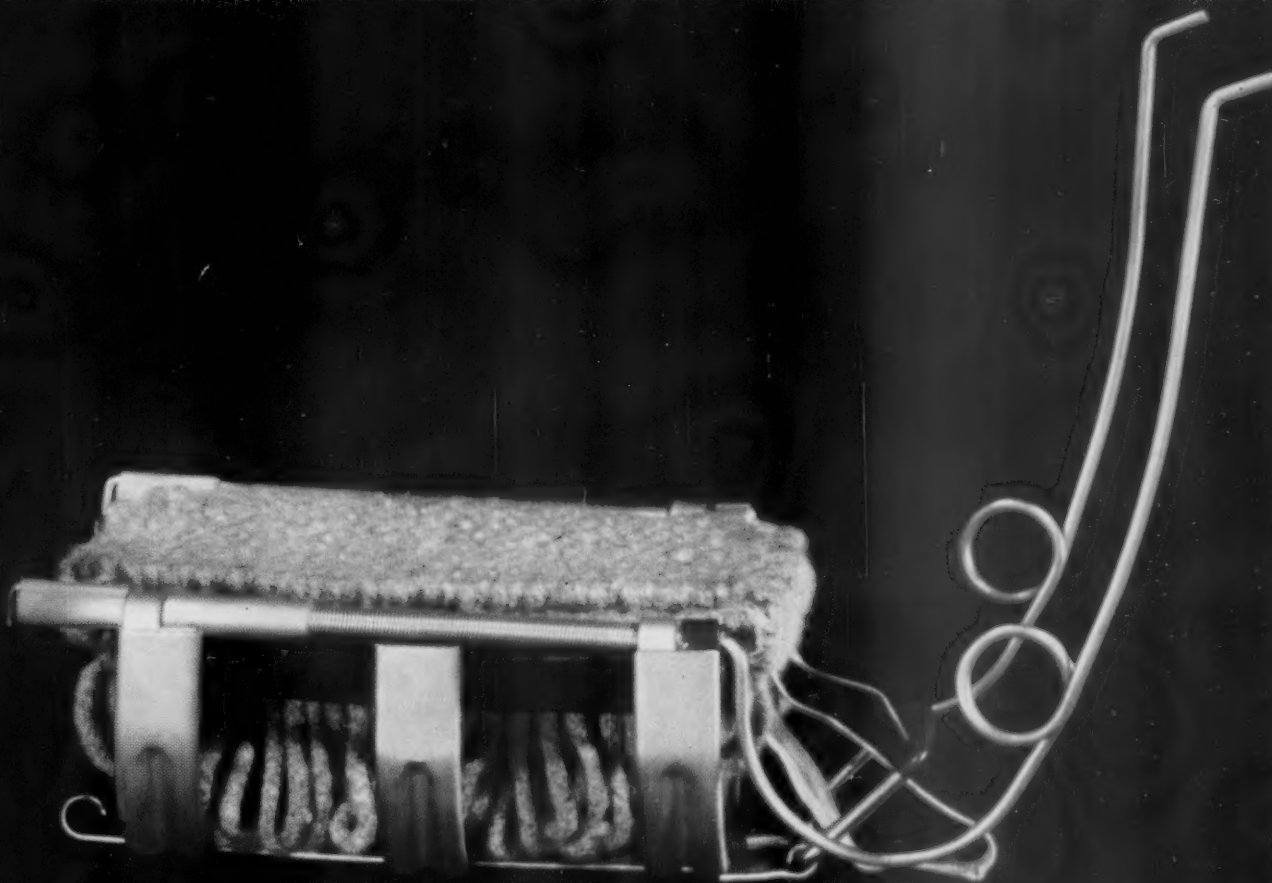
Mergers Desirable—"There are too many railroad companies in this country for optimum economy of operation. A reduction of as much as 50% is probably desirable. Many railroads are actively considering the benefits that would result from consolidation of their properties. This is one of the most important things that can be done for the welfare of the industry as a whole.

"This movement will need three things for success in addition to sound management planning. First, government agencies shouldn't only permit them reasonable freedom of action but

- "About 80% of railroad mail volume is bulk mail and railroads must maintain stand-by facilities to handle seasonal peaks. Picture the situation that would result if airlines and trucking companies were asked to handle tonnage of Christmas mail which was estimated in 1956 as over 50,000 railroad carloads."

THE LUBRICATING SYSTEM THAT IS CHANGING THE THINKING OF RAILROAD MEN!

ROLIN



PATENTS PENDING

The ROLIN transforms any journal box into a modern, non-mechanical lubricating system in minutes.

The flexible cradle frame fits the curvature of any journal box; holds the pad snugly against the journal.

Spring action holds the cradle in positive position, yet allows the pad to follow journal movements and prevents shock being transferred to the cradle. This flexible design also permits jacking of the box for easy removal of bearings without touching the lubricator.

The unique cord in the pad consists of a tough thread woven around an absorbent inner lining. These endless wicks suspended below the cradle provide a rapid and continuous "pipeline" flow of oil; with a high absorption and retention capacity furnishing a tremendous additional oil reserve.

This is the ROLIN . . . designed and engineered to guarantee you freedom from waste grabs, linting, glazing, freezing, oil starvation and other causes of lubrication failures.

The ROLIN is now in general interchange service on 61 American railroads. For factual data and the truly interesting story of the development of this remarkable device, write:

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actively encourage them in this direction. Second, labor should appreciate the long-term benefit of working in a prosperous although streamlined industry. Third, investors in impoverished companies should be realistic about the exchange of securities in the light of opportunities to enhance the real value and protection of their old investments.

"Not only are there many outstanding people at the top of large railroads, but there are many outstanding men heading small railroads who have capacity for greater leadership responsibility. Obviously good management cannot overcome insuperable problems, but the basic problems of the railroad industry are of the type that good management and good government can solve.

"The railroads' function can be very

- "My recommendation is that no new railroad capital be invested in suburban service equipment. It should be financed by the public and rented to railroads at a fair rate of interest and amortization with maintenance costs borne by railroads."

simply stated as one of mass transportation. They are the best-suited overland transportation agency to move a large tonnage of freight, a large number of people, or a heavy volume of mail between two points at one time. This should be clearly recognized by regulatory bodies in two important respects. They should be permitted to quote rates based upon the cost of providing mass transportation, with no umbrella held over trucks, and they should not be required to provide passenger service where there is no mass demand."

Low-Cost Travel—"The main ad-

vantage railroads have in providing passenger transportation is that they can move large numbers of people, even as many as 1,400 in coaches, at one time between two points. With sufficient volume per train, low costs per passenger are attainable and correspondingly low fares are possible.

"Railroads should not be required to provide service to communities where only a handful of people remain who want the service. Millions of dollars have been wasted in providing services for which there was no important demand. As far as first class passenger transportation is concerned, the function of railroads is to provide the best possible type of service in areas where they have real advantages to offer. Substantial charges for Pullman accommodations seem warranted in view of the currently high level of hotel room rates."

Cities Need Commuter Trains—

"Large metropolitan areas cannot be served effectively without a substantial volume of rail service. Construction of new roads for access to central cities may initially relieve congestion on present roads but leads to the saturation point beyond which central cities cannot reasonably accommodate automobile travel. From my description of the capital situation of the railroad industry it is evident that railroads cannot be expected to construct new facilities of any consequence for passenger transportation. Many railroads have invested large sums in new cars to serve their suburban markets. Adequate rail service, however, will probably call for a substantial outlay of new capital to satisfy the requirements of the market.

"Now let's realistically face the problem of the price the public will pay for suburban rail transportation. They will not pay more than they think it costs them to drive. What they think it costs them to drive is substantially less than railroads require to break even.

"Each railroad service should stand on its own, and a well-patronized service should not subsidize poorly patronized services. Many suburban operations should be of a rapid transit type rather than a railroad train type. Fares should be zoned and paid at turnstiles, and doors should be automatic. This would permit substantial reductions in crew expense. Suburban operations should not be taxed beyond the willingness of the commuter to pay (Continued on page 14)



Cars Tailored to Shippers' Needs at Santa Fe's Clovis Yard

A new "car-conditioning" yard, one of the largest on the Santa Fe system, has gone into operation at Clovis, N.M. Although the yard is not entirely finished, cars already are undergoing repairs there to meet growing demand for loading grain, potash, cotton and other commodities in the area. Ample space between tracks in the yard (above), permits prompt and efficient handling and spotting of repair materials. For loading potash, cars are made leakproof. Cloth-composition tape is applied at corners of cars, and slabs of cardboard are applied to flooring at ends of cars (smaller photograph), and sealed all around.

Total capacity of the repair and conditioning tracks is about 460 cars. By switching twice a day, capacity can be stepped up to 500 cars per day. At present, there are 200 men in the car repair forces. While demand for conditioning cars may cause some fluctuation in this number, the Santa Fe



feels it will consistently run between 200 and 250. The yard has 15 car conditioning tracks. There are six prefabricated steel buildings to house the lumber shed, mill, substorehouse, blacksmith shop, ladies' locker room and garage. All have concrete foundations and floors, with sides and roof of galvanized steel. Special feature of the yard is a cleaning track where tank cars are cleaned with steam.

MARKET OUTLOOK THIS WEEK

Carloadings Slip 0.5% From Previous Week

Loadings of revenue freight in the week ended March 23 totaled 685,833 cars, the Association of American Railroads announced on March 28. This was a decrease of 3,393 cars, or 0.5%, compared with the previous week; a decrease of 11,415 cars, or 1.6%, compared with the corresponding week last year; and an increase of 51,205 cars, or 8.1%, compared with the equivalent 1955 week.

Loadings of revenue freight for the week ended March 16 totaled 689,226 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS			
For the week ended Saturday, March 16			
District	1957	1956	1955
Eastern	117,887	118,305	118,518
Alleghany	139,469	140,052	129,822
Poconchos	65,283	56,242	51,473
Southern	126,332	126,761	106,771
Northwestern ..	74,657	73,549	73,960
Central Western ..	113,219	115,535	113,256
Southwestern ..	52,379	55,539	57,124
Total Western Districts	240,255	244,623	244,340
Total All Roads	689,226	685,983	650,924
Commodities:			
Grain and grain products	52,577	46,912	44,034
Livestock	5,776	7,201	6,994
Coal	140,731	124,984	106,309
Coke	13,315	13,617	10,420
Forest Products ..	39,872	42,028	41,341
Ore	23,060	21,973	16,789
Merchandise l.c.l. ..	57,720	61,784	62,114
Miscellaneous	356,175	367,484	362,823
March 16	689,226	685,983	650,924
March 9	672,386	697,601	662,283
March 2	703,984	710,976	653,575
February 23	626,636	687,018	631,072
February 16	675,966	698,319	650,248
Cumulative total, 11 weeks	7,246,720	7,557,987	7,027,321

IN CANADA.—Carloadings for the seven-day period ended March 14 totaled 74,280 cars, compared with 73,635 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
March 14, 1957	74,280	35,908
March 14, 1956	73,234	35,365
Cumulative Totals:		
March 14, 1957	742,261	340,432
March 14, 1956	791,493	364,822

New Equipment

FREIGHT-TRAIN CARS

► **Baltimore & Ohio.**—Requested bids for construction of 2,000 70-ton, open-top, drop-bottom hopper cars.

LOCOMOTIVES

► **Brazil.**—Ordered six 1,200-hp, narrow-gage diesel units, General Electric; approximate cost \$1,000,000; units, to be delivered in about six months, will go into commuter service on Leopoldina route, which connects Rio de Janeiro with Penha and Duque de Caxias; they will be first diesel-electrics on the route.

► **244 New Units Installed in First Two Months.**—Class I railroads installed 244 new locomotive units in this year's first two months, same number as installed in first two 1956 months, AAR reports; units installed in first two 1957 months included 240 diesel-electrics and four electrics, compared with 244 diesel-electrics installed in same 1956 period; new locomotive units on order March 1 by Class I railroads totaled 867 (837 diesel-electrics and 30 gas turbine-electrics), compared with 897 units (870 diesel-electrics, 15 gas turbine-electrics, 12 electrics), on order March 1, 1956.

New Facilities

► **Cedar Rapids & Iowa City.**—Will spend \$28,000 for new track in Cedar Rapids yard, \$35,000 for two double-end classification tracks in same yard, and \$74,000 for three miles of relay rail in main line; all projects for completion in 1957 by company forces.

► **St. Louis-San Francisco.**—Ordered from Union Switch & Signal-Division of Westinghouse Air Brake Company equipment to install CTC on 7.5 miles of double track between Union Station (Memphis, Tenn.), and Nonco; control machine, in Kentucky Street Tower, Memphis, will control train movements between Union Station interlocking and Tennessee yard.

► **Santa Fe.**—Ordered car retarders and signal equipment from Union Switch & Signal-Division of Westinghouse Air Brake Company for new gravity yard at Corwith, Ill.; new yard, to replace a flat switching yard, will include 32 classification tracks.

► **Seaboard Air Line.**—Has begun construction of \$600,000 eight-mile spur track from its main line southwest of Miami, Fla., to plant site of Lehigh Portland Cement Company.

► **Spokane, Portland & Seattle.**—Awarded contracts totalling \$1,738,500 to Kansas City Bridge for work on bridge over Columbia river at Wishram, Wash.; contract for \$987,250 awarded to Parker-Schram for 12 miles of bank protection along river near Wishram.

► **Terminal Association of St. Louis.**—Authorized \$250,000 for remodeling Fred Harvey facilities in Union Station; new "merchandising mart" and cocktail room included; completion expected August 1.



New 'Work Crew' for ERPC Pittsburgh Unit

Ready for action as newly elected officers for 1957 of Pittsburgh Community Committee are (left to right) Fred W. Okie, Bessemer & Lake Erie

president, chairman; Chester T. Williams, general manager, central region, B&O, vice-chairman; and R. B. Hood, B&LE, secretary.

(Continued from page 12)

those taxes. If he drives on a tax-free highway in part to avoid paying taxes on railroad property, there is something wrong.

"Railroads should not be expected to maintain elaborate public edifices just to satisfy community pride in railroad stations. Why shouldn't the

District of Columbia buy the Washington railroad station and charge the railroads a reasonable rental for its use? A rental comparable to that charged airlines for the use of airports? I am not asking for subsidy of the railroads. I am saying that railroads should be relieved of their subsidy of passenger transportation."

'Pattern' Wage Hike Proposed for BRT

A Presidential emergency board has recommended a "pattern" settlement of the wage and rules dispute between railroads and those of their employees represented by the Brotherhood of Railroad Trainmen.

The board fitted seven paid holidays for yardmen into the "pattern." This demand for paid holidays was the principal issue which brought the case to the emergency-board stage.

The demand was for seven paid holidays for all BRT members in road and yard service, with additional pay at time and one-half for work actually performed on those holidays.

The board rejected the idea as to roadmen and extra yardmen, but recommended that regularly assigned yardmen be paid for the seven holidays—if they accepted hourly wage increases lower than the pattern and agree that the additional pay for working a holiday will be at the regular rate.

The general pattern settlement proposed by the board is that granted other train-service groups. It calls for wage increases totaling 26½ cents per hour—12½ cents effective retroactively from last November 1, 7 cents effective next November 1, and 7 cents effective November 1, 1958.

Also recommended, in line with the pattern, are an escalator clause and a moratorium agreement providing that no new demands shall be served to become effective earlier than November 1, 1959. The escalator clause would provide cost-of-living adjustments, commencing May 1, of one cent per hour for each change of one-half point in the Consumer Price Index of the Bureau of Labor Statistics.

For yardmen taking the paid holidays, the retroactive increase would be 12½ cents per hour, but the November 1, 1957, and November 1, 1958, increases would be cut from 7

cents to 5 cents. Explaining how it fitted this proposal into the pattern, the board had this to say:

"Carriers have estimated granting paid holidays to yardmen under the organization proposal would result in an added cost of 7.1 cents per hour worked. Under the rule as recommended premium pay would not be required for work on holidays and other features of the rule would substantially decrease the estimated cost. Deducting 2 cents per hour from the second and third year increases impresses us as an appropriate figure to keep the carriers within a 26½ cents per hour cost impact over the three-year period, and to leave the individual receiving the paid holidays in a better position insofar as annual earnings are concerned than if he were to receive a bare 2 cents or 4 cents per hour wage increase."

The report also recommended new negotiations for a special settlement with dining-car stewards who "seem to be entitled to some additional recognition, wage-wise, than the other classes of employees before this board." It also recommended withdrawal of proposals made by railroads for revision of the overtime rule in short turn-around passenger service, revision of the dual basis of pay in passenger and through freight service, and revision of crew consist rules in road and yard service. The railroads have said they would forego these demands as a consideration for adoption of the pattern settlement.

Members of the board were: Chairman Nathan Cayton, who retired in 1955 as chief judge of the District of Columbia Court of Appeals; Francis J. Robertson and A. Langley Coffey, professional arbitrators of Washington, D. C., and Tulsa, Okla., respectively.

Another wage hike using the "pattern" of settlements in the railroad industry has been recommended by an emergency board for truck drivers and helpers employed by the Railway Express Agency in seven cities. Employees involved are members of the International Brotherhood of Teamsters.

The board recommended that the case's wage issue be settled on the basis of a three-year plan under which increases totaling 26½ cents per hour would be put into effect—2½ cents retroactive to January 16, 1956, 10 cents retroactive to November 1, 1956, 7 cents effective next November 1, and 7 cents effective November 1, 1958. Also recommended is an escalator clause to provide for cost-of-living adjustments, and a moratorium on further wage demands until November 1, 1959.

Short Lines to Have Bigger Role in Per Diem Matters

The Interstate Commerce Commission has given short-line railroads a more important role in per diem matters.

It has found that Section 5a Agreement No. 7, which covers per diem, should be modified to provide that a representative of the American Short Line Railroad Association be a member of the General Committee of the AAR's Operating - Transportation Division with rights "the same as any other member thereof, for the consideration of per diem rates, rules, regulations, and practices."

Under the agreement, the General Committee may initiate proposals to change the per diem rate, or make per diem studies for the AAR board of directors. A Short Line Association representative, usually President J. M. Hood, has been attending per diem meetings of the committee, but he has had no vote.

The commission withheld its "continued approval" of the agreement pending receipt of advice that the pact had been modified to make the change in the general-committee set-up. Meanwhile, it rejected short-line requests for various other modifications, including one for a unit vote of all subscribers on proposals to change the car-rental rate. Changes will thus continue to be made by votes on the basis of car ownership.

NRAB Process Involves Compulsory Arbitration

Procedures of the National Railroad Adjustment Board comprise a plan for "compulsory arbitration." And the Norris-LaGuardia Act is no bar to court orders enjoining strikes in "minor dispute" cases within the board's jurisdiction.

The United States Supreme Court has so ruled in a case involving a dispute between the Chicago River & Indiana and the Brotherhood of Railroad Trainmen.

The dispute arose over 21 grievances. The road submitted them to the Adjustment Board, but the BRT called a strike. The road then went to the federal district court, seeking an injunction which was refused on the basis of a finding that the Norris-LaGuardia Act's anti-injunction provisions were applicable.

The Circuit Court of Appeals for the Seventh Circuit reversed, causing the injunction to be issued. The BRT then took the case to the Supreme Court.

The decision, announced by Chief



Section Foreman Still Going Strong at 86

An 86-year-old Maine Central employee, James W. McClure (third from left), lays claim to being the country's oldest man engaged in the most rugged of all railroad jobs—section foreman. Nearing his 50th year

of service on the same stretch of track where he started work as a trackman in 1908, Mr. McClure, who boasts he has never been absent from work a single day because of sickness, has been a foreman since 1912.

Justice Warren, said the ultimate question before the court was "whether a railway labor organization can resort to a strike over matters pending before the Adjustment Board." In arriving at its negative answer, the court noted the "unequivocal" language of pertinent provisions of the Railway Labor Act. It also gave considerable weight to the legislative history of that Act, particularly to discussions which indicated that interested unions realized they were accepting procedures for final settlement of the grievance cases.

Having determined that all interests understood that "compulsory arbitration" was involved, the court proceeded to reject contentions that the Norris-LaGuardia Act is overriding. It said:

"We hold that the Norris-LaGuardia Act cannot be read alone in matters dealing with railway labor disputes. There must be an accommodation of that statute and the Railway Labor Act so that the obvious purpose in the enactment of each is preserved. We think that the purposes of these acts are reconcilable."

Katy Retrenchment Spreads to Missouri

Like a corporate Arab, the Missouri-Kansas-Texas seems to pack its furniture and records and silently steal away.

Already the object of bitter accusation from officers of the state of Kansas, who have charged the road with secretly and illegally abandoning its offices and shops at Parsons, the Katy last week pulled a partial "vanishing" act in St. Louis.

Employees coming to work last Monday morning found, taped to their accounting office door in the Railway Exchange building, the following notice:

"This office was transferred to

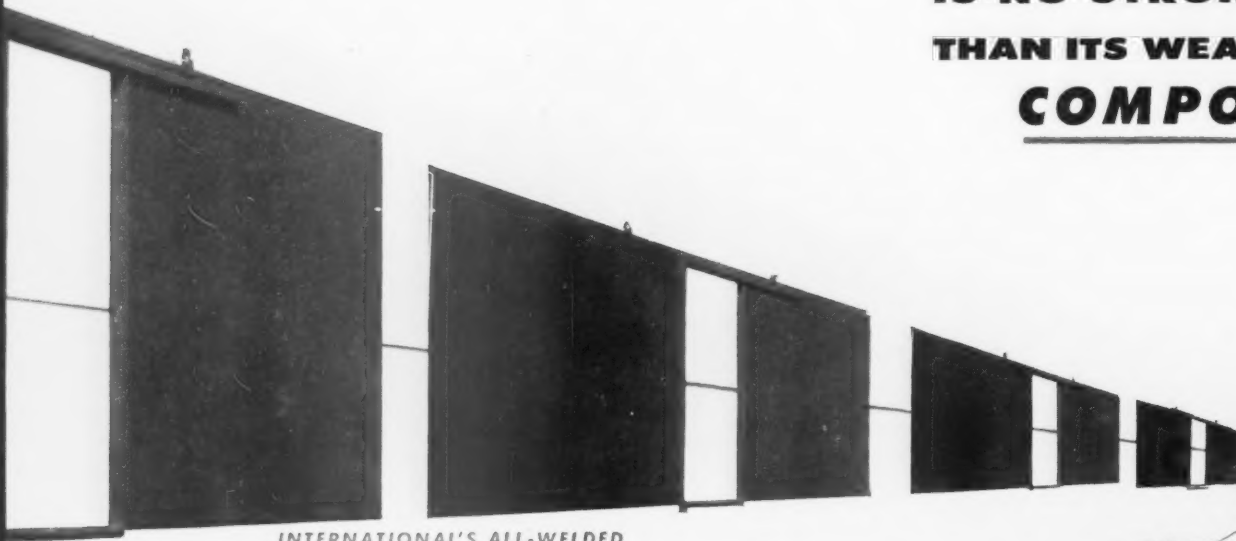
Denison, Tex., March 23, and employees who desire to transfer will report to Denison for duties starting at 8 a.m. Wednesday, March 27, 1957."

A similar notice was up on an office door at the Katy's St. Louis freight house.

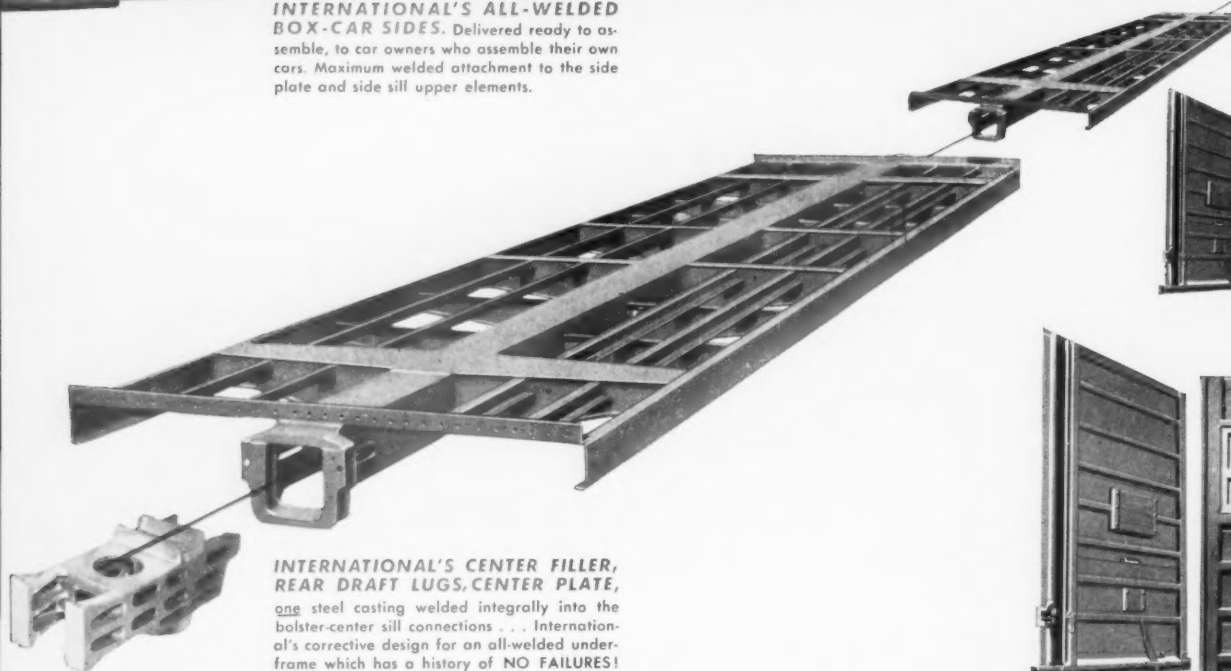
Though the employees were also notified that a special train would run to Denison for those wishing to go, and that certain temporary facilities would be provided there, some were said to be in a "disgruntled" and "immobile" state of mind.

Kansas Gov. George Docking has charged the Katy with discriminating

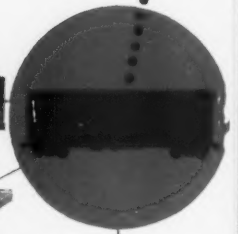
**A FREIGHT CAR
IS NO STRONGER
THAN ITS WEAKEST
COMPONENT.**



INTERNATIONAL'S ALL-WELDED BOX-CAR SIDES. Delivered ready to assemble, to car owners who assemble their own cars. Maximum welded attachment to the side plate and side sill upper elements.



INTERNATIONAL'S CENTER FILLER, REAR DRAFT LUGS, CENTER PLATE, one steel casting welded integrally into the bolster-center sill connections . . . International's corrective design for an all-welded under-frame which has a history of **NO FAILURES!**



INTERNATIONAL'S BULK-LADING SIDE DOOR. Requires no inside grain door . . . and has an access door for loading, inspection and sampling. Positive retainment on the car structure.

The **UTILITY DOOR** without the grain loading feature has the same inter-locking features and sturdier International construction as the Bulk-lading door.



I**NTERNATIONAL**
STEEL
COMPANY

RAILWAY DIVISION
EVANSVILLE 7, IND.

Precision fabricators of correctively designed components

against his state in favor of Texas. He says the Katy wants to move its Parsons operations to Dallas and Denison.

Early last week more artillery had been moved into position by the state: The Kansas Corporation Commission was drawing up a petition to the Interstate Commerce Commission, asking an investigation into "violation of safety regulations" in the move.

It also came to light last week that the Katy had earlier removed records and transferred personnel from its

Dallas accounting offices to Denison.

Katy executive offices will apparently remain in St. Louis as will a freight traffic department.

Practically incommunicado for the past few weeks, President Deramus late last week issued a statement in which he said all presently planned transfers and reductions of Katy personnel were complete. He explained the relocations to Denison as being due to "the immediate need for economy and increased efficiency of operation."

'Shall Nots' Bill Set for Hearing

The railroad industry's rate-freedom program is scheduled to come up for hearing this week before the Subcommittee on Transportation and Communications of the House Committee on Interstate and Foreign Commerce.

On the subcommittee's docket for

sessions to begin April 2 were H.R.5523 and H.R.5524, identical bills which would incorporate the "three shall nots" into the Interstate Commerce Act.

The ICC, which opposes the "shall nots" bills, made 26 legislative recommendations in its annual report, and

these proposals, too, are now up for hearings before Congressional committees. First of these series of hearings was held March 20 and 21 before the Senate Interstate Commerce Committee's Surface Transportation Subcommittee, headed by Senator Smathers, Democrat of Florida. They involved five commission proposals embodied in these bills:

S.1386, to authorize the commission to prescribe rules for installation, inspection and repair of train brakes.

S.1463, to include motor carriers in the Medals of Honor Act.

S.1490, to require registration of all motor carriers subject to the commission's hours-of-service and safety regulations but not otherwise subject to its jurisdiction.

S.1491, to rewrite the Transportation of Explosives Act.

S.1492, to increase the fines for safety-act violations to the point where they reflect the decreased value of the dollar.

The brake-inspection bill is opposed by the railroad industry.

On the House side, the Subcom-
(Continued on page 52)

Railroading



After Hours with

Jim Lyne

PASSENGER CONVENIENCE—Some of the extra fare trains (e.g., the "Century") have had secretarial service, including use of dictating machines, for quite a while. I note now that the Wabash has put a dictating machine at the disposal of passengers on the "Blue Bird," including free recording tape.

I have got into kind-of a habit, when I get a chance to talk to business men, to ask them whether they do more of their travel by rail or air, and why. A very large ratio say they prefer rail—except when they are in a particular hurry, or the trip is an unusually long one. But, almost without exception, they have one fault to find with most popular trains—the difficulty of getting reservations. And, when they do get aboard, they usually see unoccupied space.

I don't know whether this situation is as serious as some say it is or not. For instance, if a room is seen to be unoccupied—maybe it's because it's being held for a station down the line. However, justified or not, the presence of empty space on hard-to-get-on trains is the most widespread complaint that I hear about railroad passenger service.

ADVERTISING ON CARS—I asked the question here recently what the reason was for the absence of product advertising on box cars—and, it turns out, my suspicion was correct. President W. T. Faricy of the AAR tells me the subject has had "extensive consideration many times"—and the conclusion has always been that the disadvantages outweigh the advantages.

For example, a box car has to be used for any available lading (to curtail empty mileage); and maybe the only

car handy for a load of canned soup would be one advertising the product of the manufacturer's chief competitor. And, besides, cars would have to be shopped periodically to repaint the ads.

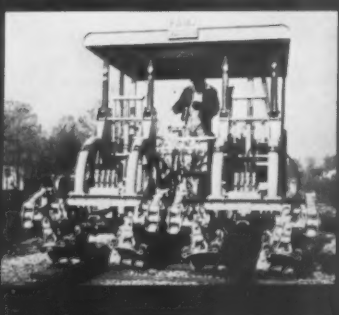
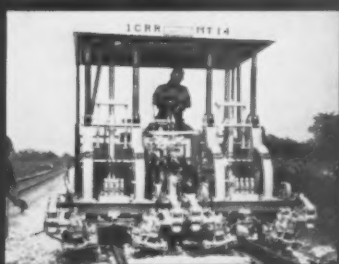
Holcombe Parkes of the RPI—and an alumnus of the railroad advertising profession—says that, years ago, he "joined the long list of 'discoverers' of this idea of using box cars as billboards." When he got further into it, like many others before and since, he found he had to file the proposal under "pleasant dreams."

Harold B. Brown of Socony Mobil Oil gives me the reference to the applicable interchange Rule—Rule 3 (a) (9) and Rule 36 (1). He says the matter was discussed extensively in 201 ICC 323.

LOWER EQUIPMENT INTEREST?—Business Economist Eliot Janeway, who numbers several railroads among his clients, says that interest rates on equipment obligations usually follow those of "banker's acceptances" and other high-grade short-term loans, and points out that the trend of interest rates on the latter is downward.

RETIRED OFFICERS—On a recent trip, I got to talking to a trainman (as I do every time I get a chance). This man was a veteran and proud of his railroad, but was full of a lot of what sounded to me like misinformation (not very flattering either) about current policies on his railroad. He cited a retired officer of the company as his authority.

I suspect that maybe this retired officer (if that's where the trainman really did get his inaccurate information) was probably not being currently informed by management as to what was going on.



The JACKSON TRACK MAINTAINER

**PUTS UP PERFECT TRACK IN A WIDER
RANGE OF BALLAST AND CONDITIONS
THAN ANY OTHER TAMPING EQUIPMENT!**

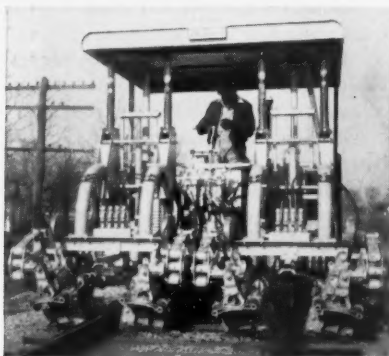
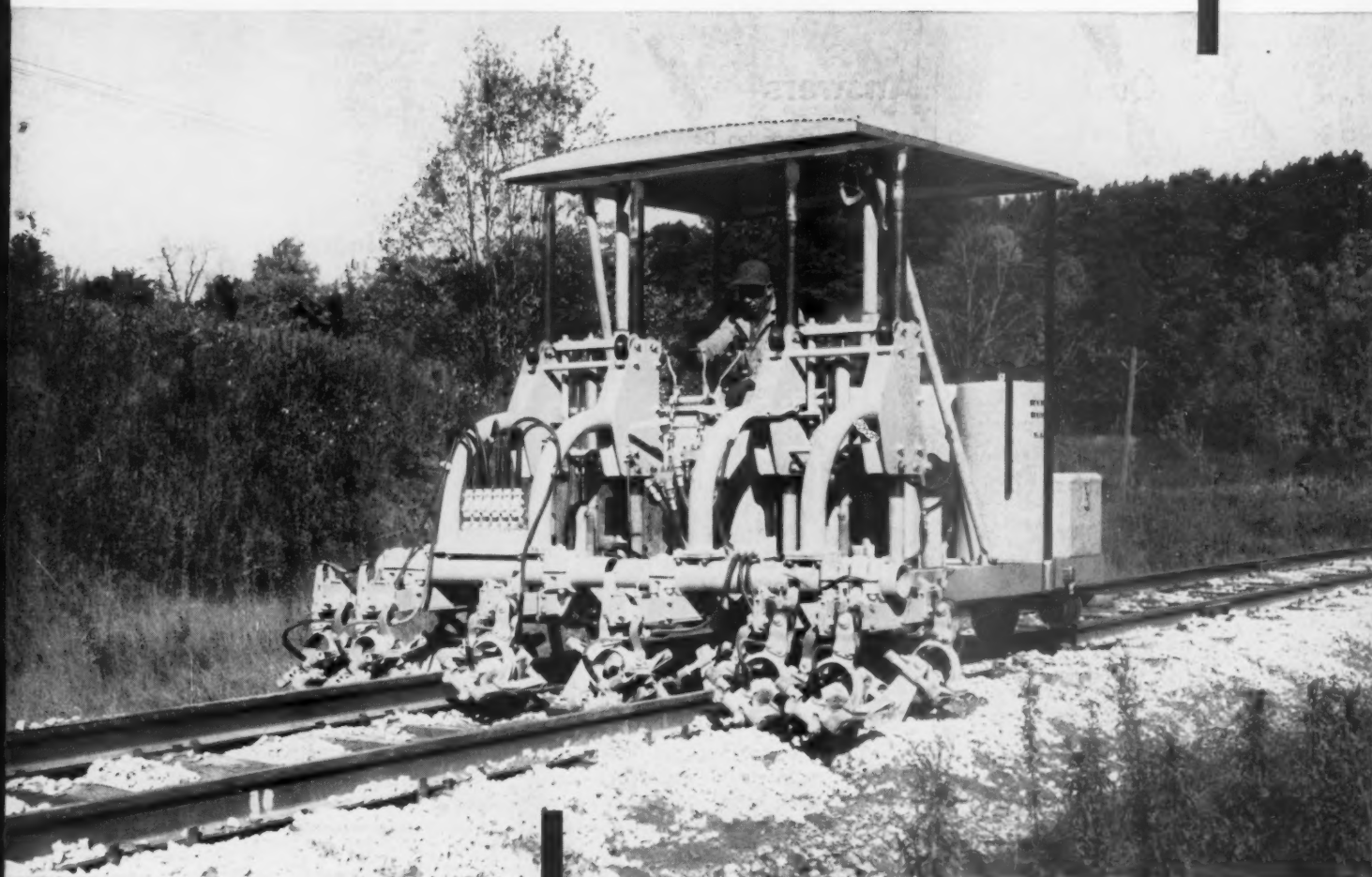
Unmistakable proof of this fact is found in the almost universal acceptance of this machine by America's leading railroads. To make sure your track maintenance dollars do maximum duty, get the complete facts concerning the Jackson before making any commitments. The evidence of its superiority is so outstanding we are confident you'll specify no other.

Acquirement plans to meet your needs

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LUDINGTON, MICHIGAN

It's **NEW!**

It's a **LULU!**



JACKSON TRACK MAINTAINER For both putting up and maintaining track in an unlimited range of ballast and conditions this powerful machine has no rival !!!



JACKSON MANUALLY GUIDED TIE TAMPERS These machines and the power plants from which they are operated, are exceedingly efficient; widely used by small gangs in low lifts and smoothing work, cross-overs and spots the on-track machines can not reach.

This VASTLY IMPROVED VERSION OF THE JACKSON MULTIPLE TAMPER

Better than ever for the many who need a fast, uniform and economical ballast placement machine for construction, rehabilitation or new ballast construction of any kind where the raise is high. OK also for regular out-of-face maintenance when track lift equals or exceeds maximum ballast dimension. OK again for low lifts and smoothing in sandy or "small grain" ballasts when great penetrating power is not required. For the small road, the contractor, and the class 1 road having high lift programs or work in light ballast, this low-cost, versatile, medium power tamper is ideal. Split Crosshead and faster indexing from tie to tie are some of its major improvements. Let us give you the complete facts.

Acquirement plans to suit your needs.

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LUDINGTON, MICHIGAN

Questions and Answers

Of current interest to the Transportation Department

What does consignees' failure to remove dunnage from cars mean to the railroads in terms of lost car days? And has there been any recent noticeable improvement in patrons' cleaning of cars after the load has been removed . . .

?

CONDUCTED by G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, Railway Age, 30 Church Street, New York 7.

No. Cars needing cleaning are on increase.

We asked this question of a number of transportation officers of some of the country's larger roads. In the opinion of many of these railroad people, consignees' performance in car cleaning is not all it should be. And dirty cars are costing the railroads and their customers plenty of money, as will be seen. (We'll give you more answers to this question later on.—G. C. R.) Here's one view:

"Receivers of carload freight, with few exceptions, have indicated their willingness to cooperate in the voluntary program sponsored by the National Clean Car Committee of the National Association of Shippers Advisory Boards. The few exceptions usually have submitted valid reasons for failure to participate. Such reasons are: no means for disposal of debris; cramped quarters and track space; and in some instances, city ordinances which place restrictions on the disposition to be made of debris.

"Our railroad, however, is cleaning and conditioning an enormous number of cars each year with our own forces, and this number is increasing. Our records indicate an increase of approximately 50% from 1951 to 1956 in the number of cars cleaned.

"From checks made at our larger terminals we find that (1) approximately 50% of the cars released have to be sent through the cleaning process; and (2) approximately three days per car are lost for each car going to the cleaning tracks. Generally, cars released on team and public dray tracks have not been unloaded as completely as are those released from industries. In most cases team track receivers do not receive carload shipments regularly and have not become acquainted fully with the clean car program. Such patrons, generally, are receivers only, and consequently are not too concerned with car supply for shippers. We feel this situation will improve as the program is progressed.

"The program now in effect on our

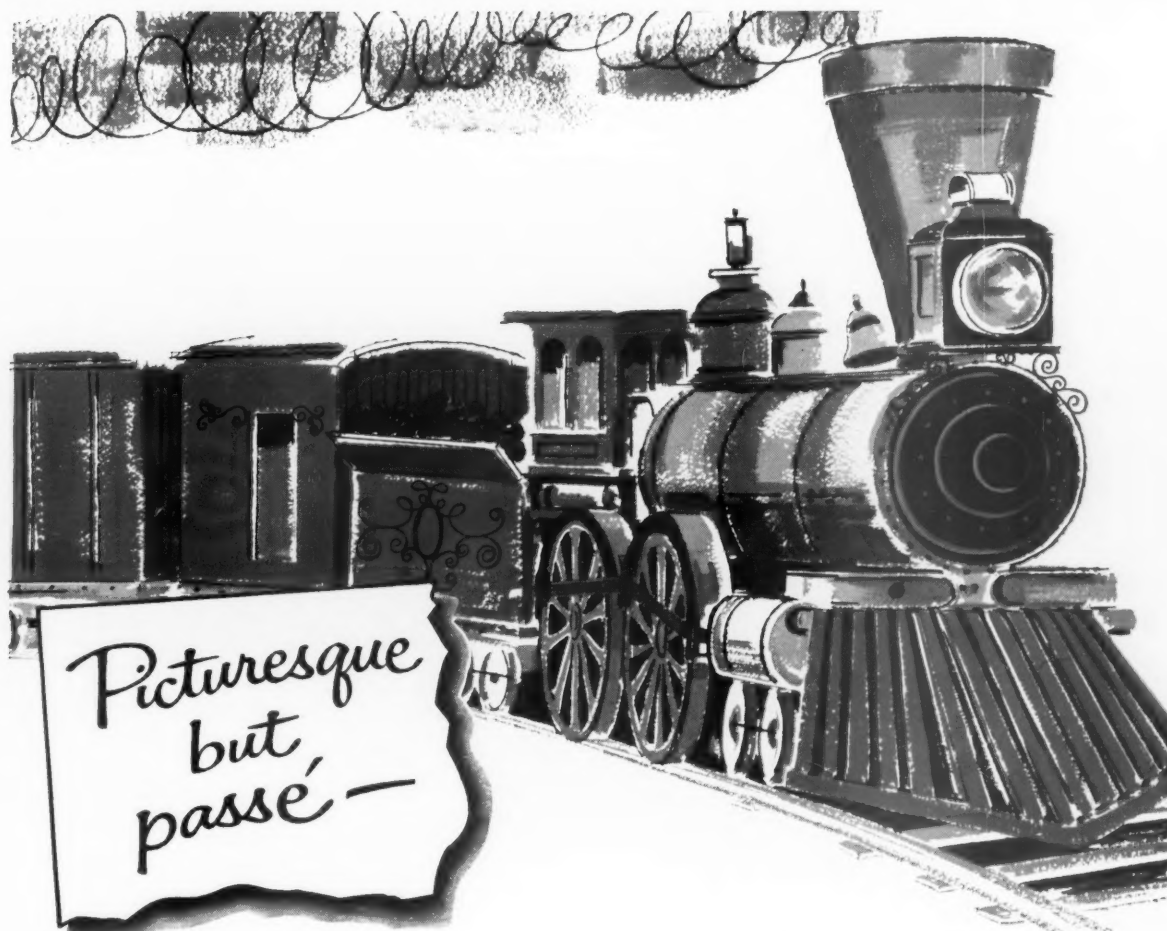
road conforms with the national program set up by the NASAB's Clean Car Committee, and is conducted as a voluntary cooperative effort. Spot checks are conducted frequently at selected points in conjunction with representatives of the AAR and local car efficiency committees representing the local shippers advisory board. Results of these checks are analyzed, and receivers who have released cars in unclean condition are urged to cooperate in the future. Rechecks are made at later dates.

"We feel the situation will improve as the program is expanded. It is our suggestion that the present voluntary cooperative program be continued and enlarged to include as many additional points as possible, with rechecks being made frequently at these towns and cities."—J. L. Cook, general superintendent transportation, Seaboard Air Line.

I wonder if the fact that much team track unloading is done for consignees by independent trucker has anything to do with the relatively higher percentage of cars unloaded at these facilities which are found dirty? If so, how can railroads bring about an improvement in cooperation here?

Answers to our recent car service quiz are still coming in. Unfortunately we cannot print the names of these late respondents who give the right answers. The reason: the answers appeared, as scheduled, in our issue of March 4. Obviously we cannot accept those answers which reach us after the correct solution has appeared in print. For credit for the correct solution please be sure in the future to get your answers to us before the date of publication of the correct answers.

We owe another respondent an apology—this time for omitting from the list of those who sent us the right answers the name of Richard Adema, yardmaster of the Wabash at Landers yard in Chicago.—G. C. R.

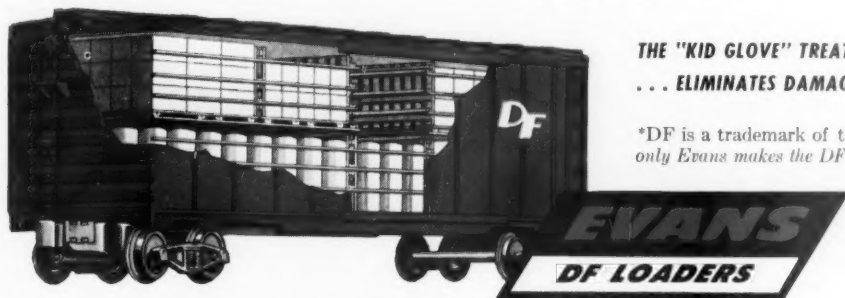


...and so is old-fashioned lading protection

The day of the "iron horse" is done . . . and so is the shake, rattle and roll treatment of freight . . . thanks to Evans DF* equipment.

DF-equipped box cars have virtually eliminated damage in transit. Costly dunnage is a thing of the past.

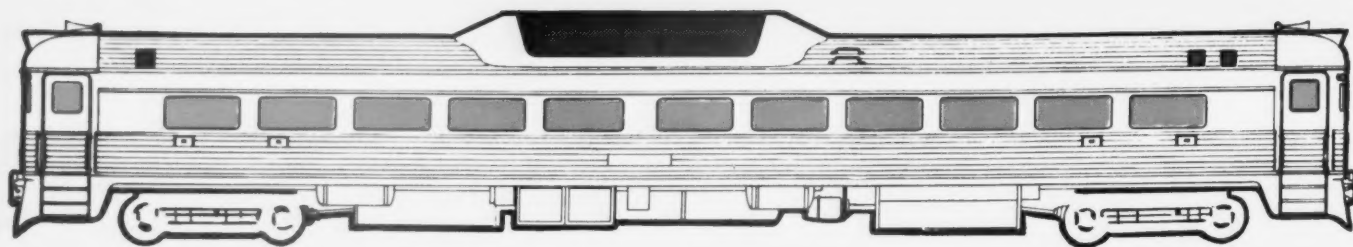
Today, 46 major railroads offer DF-equipped cars *at no extra cost to shippers*. And these railroads report triple revenue per car over ordinary cars. So whether you're shipper or railroader, don't be content with "iron horse" lading protection. Write today for full details on DF: Evans Products Company, Dept. E-3, Plymouth, Michigan.



**THE "KID GLOVE" TREATMENT THAT LOCKS IN LADING
... ELIMINATES DAMAGE AND DUNNAGE**

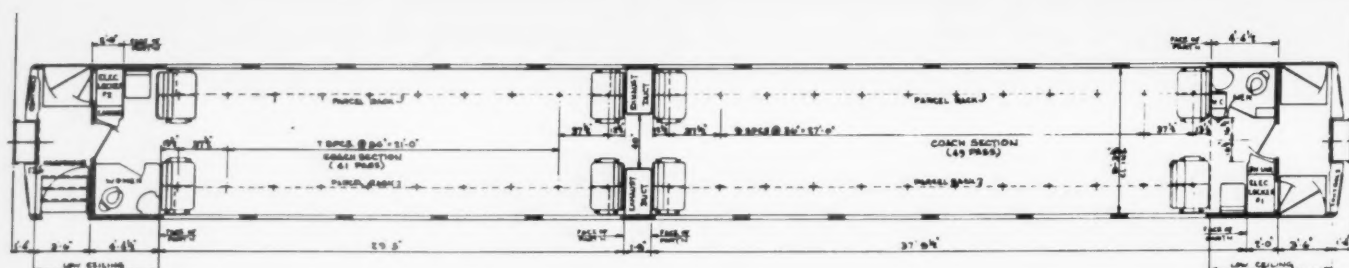
*DF is a trademark of the Evans Products Company . . .
only Evans makes the DF Loader

EVANS PRODUCTS COMPANY also produces: truck and bus heaters;
bicycles and velocipedes; Evaneer fir plywood; fir lumber; Evanite battery separators and Evanite hardboard.



RDC-1

RIDC



RDC-1

nearest thing to an all-purpose car

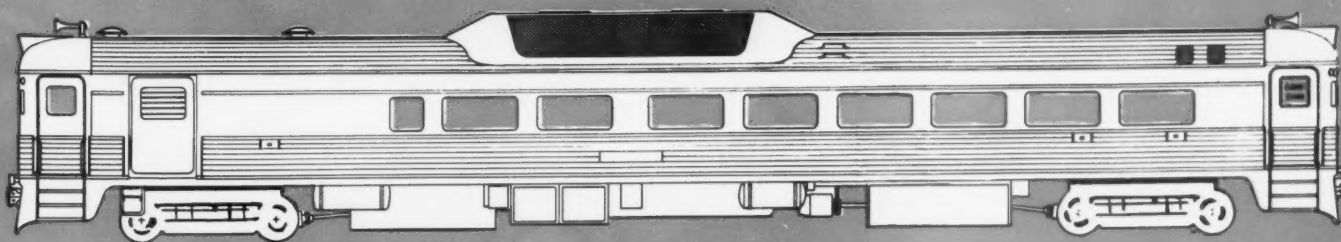
Our belief has always been that railway passenger cars should be designed and constructed to meet the special needs of the railroad that operates them.

In the case of **RDC**, it is hard to find a need that its four basic models do not fit with distinction and economy.

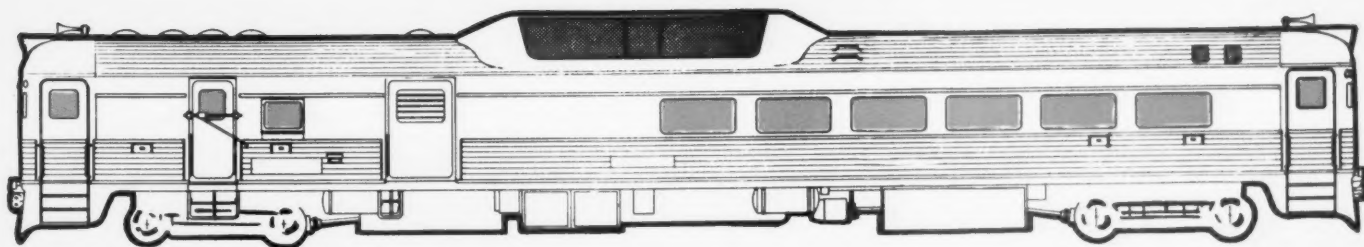
They operate between Camden and Haddonfield—seven miles. They make the trek from Oakland to Salt Lake City on the record of 100% availability—924 miles. In Canada they encounter temperatures 50 degrees below zero; in Saudi Arabia, 130 degrees above.

There are now more than three hundred RDCs in service on 29 railroads.

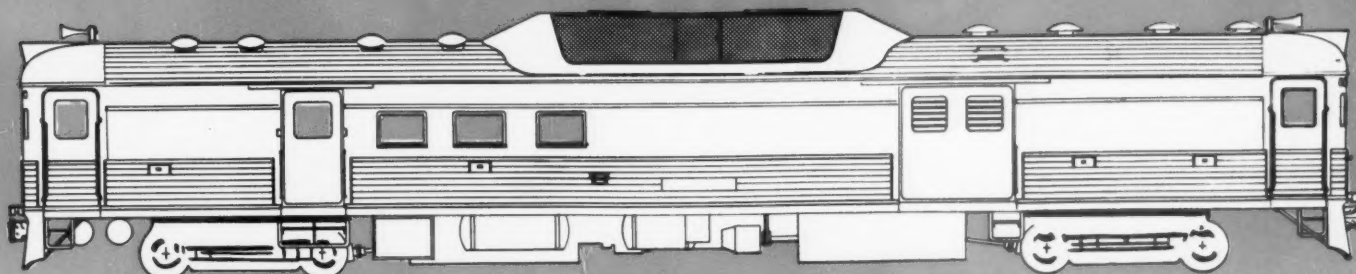
in this country and abroad. In crowded New England they have revolutionized rail travel. Others have brought rail transportation to the lonely desert and silent timberlands. Yet consider this: With all the services and conditions encountered in over 50,000,000 operating car miles recorded to date, eight railroads, having reported on 14,000,000 miles of RDC operations, showed an average out-of-pocket operating expense of 59.23 cents per mile. A return-on-investment of 25% a year is not unusual. Many RDCs have earned their purchase price in less than two years.



RDC-2



RDC-3



RDC-4

NEW RDCs . . . ready to go to work for your railroad

While the decision to purchase RDCs often comes after extended deliberation, there are other times when their desirability is so obvious that the only question is how soon can they start contributing to improved services and better earnings.

To meet this contingency, we build RDCs in advance of orders so that deliveries can be made with great promptness.

The RDCs we are now building incorporate all the improvements and refinements that millions of miles of operating experience have indicated to be desirable. More power. More capacity. Larger wheels. Improved air conditioning. All of the many already proved features, made better.

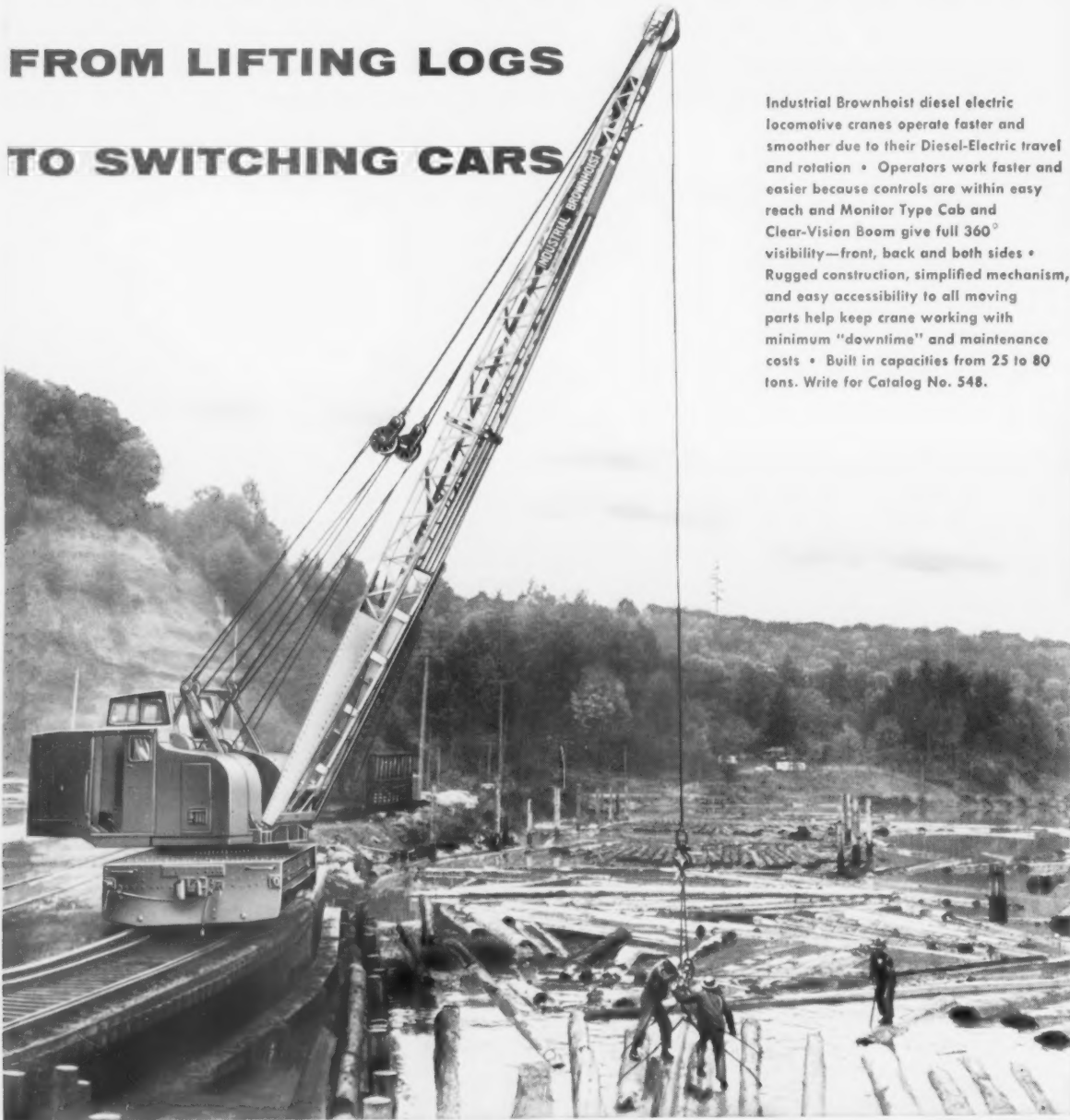
When may we sit down with your traffic people to study how RDC can contribute to your railroad?

THE BUDD COMPANY

PHILADELPHIA 15

Budd

WHY INDUSTRIAL BROWNHOIST LOCOMOTIVE CRANES SPEED UP JOBS FROM LIFTING LOGS TO SWITCHING CARS



Industrial Brownhoist diesel electric locomotive cranes operate faster and smoother due to their Diesel-Electric travel and rotation • Operators work faster and easier because controls are within easy reach and Monitor Type Cab and Clear-Vision Boom give full 360° visibility—front, back and both sides • Rugged construction, simplified mechanism, and easy accessibility to all moving parts help keep crane working with minimum "downtime" and maintenance costs • Built in capacities from 25 to 80 tons. Write for Catalog No. 548.

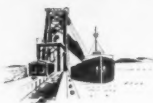
BROWNHOIST



CLAMSHELL BUCKET



COAL ORE BRIDGE



CAR DUMPER



LOCOMOTIVE CRANE

INDUSTRIAL BROWNHOIST CORPORATION, BAY CITY, MICHIGAN • DISTRICT OFFICES: New York, Philadelphia, Cleveland, Chicago, San Francisco, Montreal, Canada
• **AGENCIES:** Detroit, Birmingham, Houston

SUBSIDIARY OF



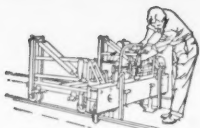
199

W84 SERIES B Hydraulic Spike Puller is primarily for use in tie gangs. Light in weight, it features a ball and socket-mounted pull assembly. Will pull from either rail without change-over.

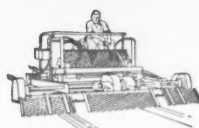


When you think of
TIE RENEWAL

... think first of ***Fairmont***



W86 SERIES A Hydraulic Rail Lifter features a spring-counterbalanced lifting arm, welded steel supporting frame and a direct-driven hydraulic pump. Two-man track removal.



W87 SERIES B Tie Bed Scarifier with one operator can dig a tie bed a minute to a controlled depth at right angles to rails. Assembly and drive are hydraulically operated.



W90 SERIES A Tie Handler inserts or removes ties quickly and requires only two men for operation. Simple design and sound construction. Self-propelled. Two-way operation.



W68 SERIES A Hydraulic Tie Remover removes ties at an average rate of approximately one per minute. Ruggedly built with a minimum of moving parts. Two-man operation.

W83 SERIES B Tie Nipper (not illustrated) features a simple linkage and lever which guarantee positive opening and closing of hooks. The handle can be placed in three different positions.

Fairmont tie renewal equipment cuts costs and down-time in every phase of the operation. Built for limited personnel operation, Fairmont products are fast . . . safe . . . rugged . . . and as light in weight as is practical. They are the result of hundreds of hours of careful design, engineering and on-the-job testing. If tie renewal figures in your plans, study the representative equipment illustrated here and then contact us for complete, detailed information. You'll discover that if you have a job to be done—there's a Fairmont product to do it!

FAIRMONT RAILWAY MOTORS, INC., FAIRMONT, MINN.

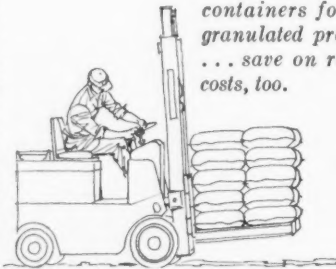
MANUFACTURERS OF INSPECTION, SECTION AND GANG CARS, HY-RAIL CARS, MOTOR CAR ENGINES, PUSH CARS AND TRAILERS, WHEELS, AXLES AND BEARINGS, BALLAST MAINTENANCE CARS, DERRICK CARS, OIL SPRAY CARS, GROUTING OUTRITS, TIE RENEWAL EQUIPMENT, RAIL RENEWAL EQUIPMENT, WEED CONTROL EQUIPMENT.

BAKELITE® FINDS BULK-SHIPPING BY AIRSLIDE CARS PAYS OFF

ORDERS **25**
ADDITIONAL CARS!



OLD METHOD



Airslide Cars eliminate bags, drums and containers for dry, granulated products ... save on related costs, too.

NEW COST-SAVING METHOD

35-40 tons of Vinyl Resin at one time in contamination-free Airslide Car.

UNION CARBIDE'S BAKELITE DIVISION has been making interplant bulk shipments in hopper cars for several years, and in 1955 supplemented the movement with fifteen 3600 cubic foot capacity Airslide® Cars. Bulk shipments of vinyl resins, particularly in Airslide Cars, provide savings and, equally or more important, their experience proved Airslide Cars deliver products free of contamination. That is why Bakelite, just one year later,

ordered 25 additional Airslide Cars from General American Transportation Corporation to augment the cars presently in use.

You, too, like scores of producers of dry, granular products, can benefit with General American's Airslide Cars—"bulk ship" in complete confidence in contamination-free Airslide Cars—save on bags, drums or similar costly containers. You'll find . . . it pays to plan with General American.



GENERAL AMERICAN TRANSPORTATION CORPORATION

135 South La Salle Street • Chicago 90, Illinois
Plants and offices in principal cities



ANTIQUE...OR MODERN...?

In furniture, some still prefer antiques. But in railroads, the trend is definitely toward modern. Sure sign of an up-to-date, progressive railroad—freight cars equipped with NAILABLE STEEL FLOORING.

The rugged strength of N-S-F* stands up under the heaviest loads and loading equipment, yet

shows no strain—won't gap or splinter. In fact, N-S-F actually strengthens critical points of the underframe, can outlast the car itself. And don't forget, its skidproof surface provides easier loading, greater safety for personnel.

You'll profit in going modern and specifying N-S-F.

*N-S-F (TM): NAILABLE STEEL FLOORING
Made and sold by



STRAN-STEEL CORPORATION

Detroit 29, Michigan • Division of

NATIONAL STEEL CORPORATION

Complete engineering and cost data available from our representatives in Chicago, New York, Philadelphia, St. Louis, Cleveland, San Francisco, Minneapolis and Atlanta. In Canada, N-S-F is made and sold by International Equipment Co., Ltd., Montreal.

57-SS-20A

**There's Improved Railroading
with National Specialties**



Reason:

NATIONAL PROTECTION



Draw Gear Assembly

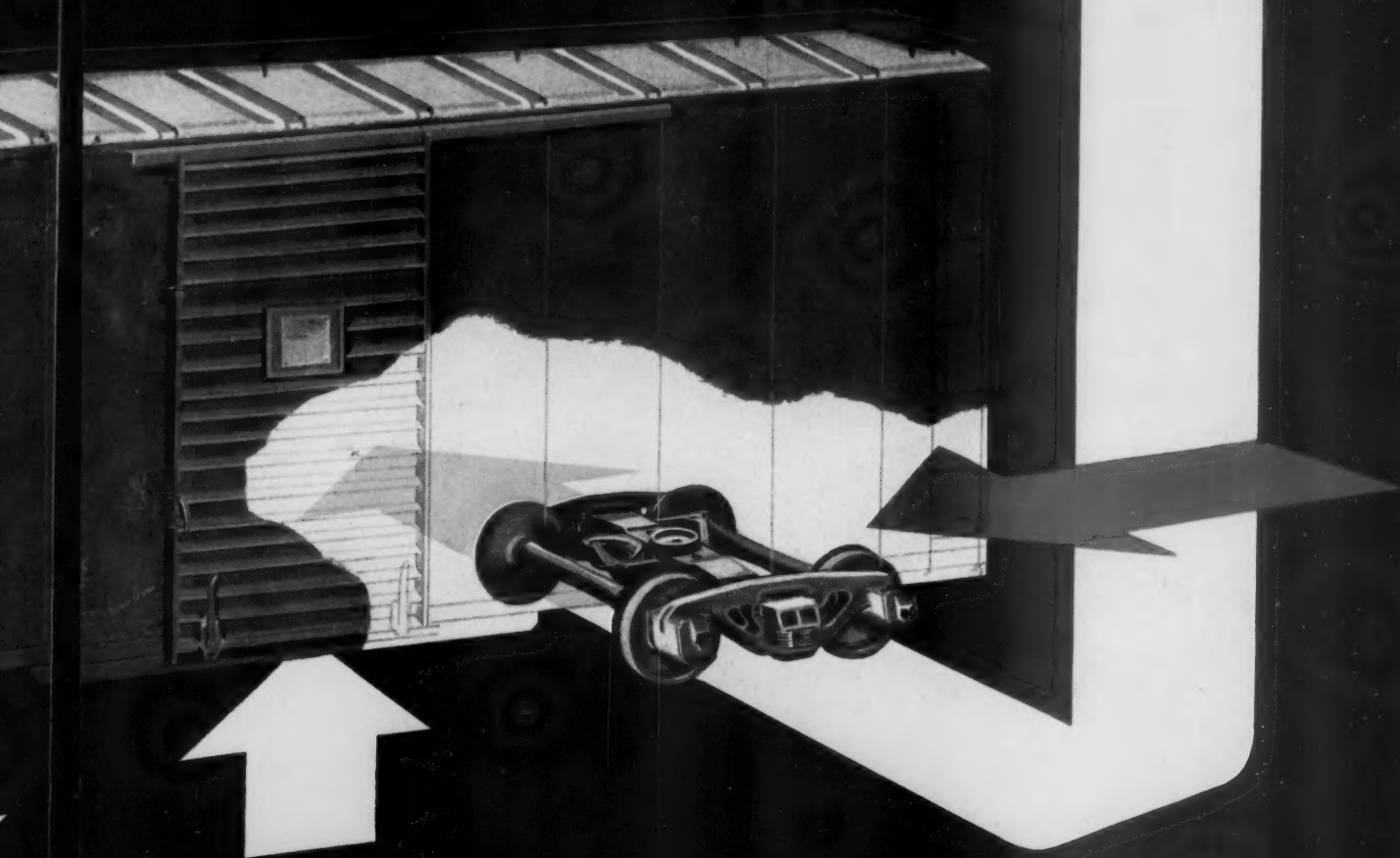
Reduce costly maintenance of cars by using National MF-400-1 Rubber-Cushioned Draft Gears, with National Type F Interlocking Couplers and National Y-45 Yokes. This combination makes a perfect shock control team to effectively cushion end-to-end impacts.



NATIONAL MALLEABLE
and STEEL

Railway Division Headquarters
Cleveland 6, Ohio

COUPLERS • YOKES • DRAFT GEARS • FREIGHT TRUCKS
SNUBBER PACKAGES • JOURNAL BOXES

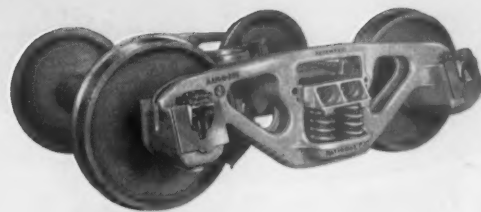


FROM EVERY DIRECTION *reduces maintenance*

National C-1 Truck

With built-in friction control devices, C-1 trucks provide positive *lateral* control and protection against *vertical* shocks for a smoother ride that reduces damage to rolling stock, lading and roadbed.

AA-4688



CASTINGS COMPANY

International Division Headquarters
Cleveland 6, Ohio

Canadian Subsidiary • National Malleable & Steel Castings
Company of Canada, Ltd. • Toronto 1, Ontario

**Established
in 1868**

LOOK AT



1.

Longer Service Life

All ASF Extended Life Springs are shot-peened—which cold-works surfaces and more than doubles the life of the spring.

ASF

ALL THREE

...before you specify truck springs!

2. 3.

Better Performance

A new heat-treating process makes ASF Extended Life Springs far better able to maintain load-carrying capacity—without permanent set.

Lower Cost

ASF Extended Life Springs are now available at no increase in cost over conventional springs. Because they last over twice as long, they cut your spring costs per car mile.

E-X-T-E-N-D-E-D L-I-F-E SPRINGS

A contribution to railroad progress...through research by

AMERICAN STEEL FOUNDRIES

Prudential Plaza, Chicago 1, Illinois

Canadian Sales: International Equipment Co., Ltd., Montreal 1, Quebec





Two **NEW** International **BIG BONUS**

with fast-loading, dirt-heaping, clean-

Now...all the advantages of famous International scraper design are available in two new towed scrapers—to turn big International crawler power and traction into *big-bonus* yardage. The new 20 cu yd heaped 4S-85 is matched in weight and capacity with the giant TD-24 to pile up profits on the fill. The 14-yard heaped 4S-55 is a cycle-speeder behind TD-18 heavy-duty pull!

Turn on International crawler power with one of these new scrapers—and watch the dirt boil in freely—compact itself into corners—build up an extra-yardage heap. These new scrapers have *flush-smooth* bowl interiors for *flow-easy* dirt action. You've never seen such fast, easy, big scraper loading! And outside-

mounted apron arms insure super-speedy, load-trapping apron action!

Ground-hugging profile and low draft arm connections give these new International scrapers an amazing new load-heaping line of draft—plus greatly increased *all-speed* stability for rough-terrain hauling! Roll-out ejection assures fast dumping, and positive discharge of wet, sticky material!

Study the *extra yard-getting* features of these new big-capacity scrapers from the new balanced, easy-hitch tongue to the big-target push-block. Ask your International Construction Equipment Distributor for a demonstration.



INTERNATIONAL® **Construction Equipment**

International Harvester Company, 180 N. Michigan Avenue, Chicago 1, Illinois

A COMPLETE POWER PACKAGE INCLUDING: Crawler, Wheel, and Side Boom Tractors... Self-Propelled Scrapers and Bottom-Dumps... Crawler and Rubber-Tired Loaders... Off-Highway Trucks... Diesel and Carbureted Engines... Motor Trucks



New fast-loading bowl design is obtained with a low rear apron contour that gives positive, built-in dirt-boiling action under all loading conditions. Even the wearbars protecting tilting floor hinge are blended into cutting edge bed—to insure smooth dirt flow!

YARDAGE

Scrapers

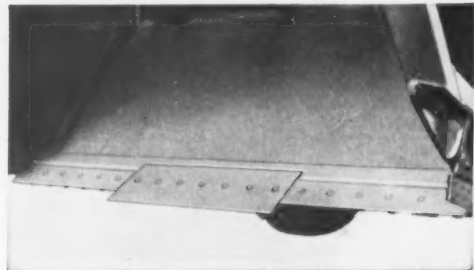
dumping design!

BRIEF SPECIFICATIONS:

Model	Recommended Tractor Size	Capacity		Capacity (with Sideboards)		Shipping Weight (Approx.)
		Struck	Heaped	Struck	Heaped	
4S85	TD-24	16	20	19	22	37,200
4S55	TD-18	10	14	12	15	26,360

Controlled, even spreading is accomplished by positive, power-saving roll-out ejection. High-lift apron, opened by ejector, eliminates excessive sheave travel and complicated reeving. All four axles of these new scrapers are individually replaceable, to minimize downtime, reduce repair expense! Below, the model "55" and TD-18 on the fill.

New cutting edge, where boiling action begins, consists of three equal-length, completely interchangeable and reversible sections. This design simplifies your parts inventory! And the cutting edge depth can be quickly changed to three different positions to match soil conditions and increase loading efficiency!



Exclusive power-saving double ball bearing sheaves maintain correct sheave alignment—provide increased cable and sheave life in these new scrapers. Below, it's the new 20-yard model "85" International scraper being self-loaded by a TD-24 crawler.



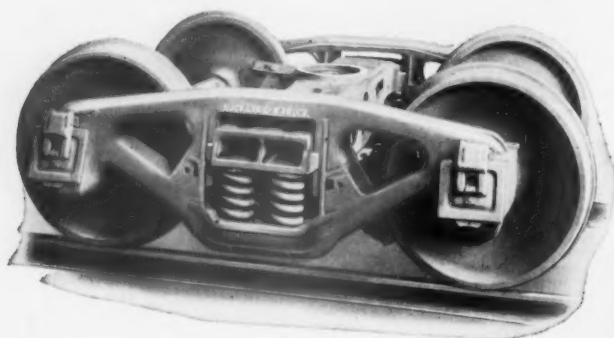
ANOTHER

Buckeye

EXTRA

..AT NO EXTRA COST!

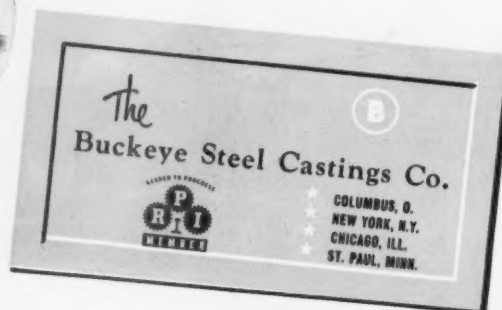
**ACCURATE UNIPLANE* JIG GRINDING
OF JOURNAL BOX LID FACE IMPROVES CLOSURE**



FOR COMPLETE INFORMATION . . CALL or WRITE

Refer Adv. No. 11872

First featured on Buckeye's
famed C-R (Cushion Ride) truck .
now standard process on all Buckeye
trucks with integral journal boxes.





Ily Peskin photo taken at Ice Follies.

You'll go "Head over Heels" for

gould extra benefits:



America's Finest!
GOULD
KATHANODE BATTERIES
for Diesel Starting

©1957 Gould-National Batteries, Inc.

Always Use Gould-National Automobile & Truck Batteries

Largest application engineering staff to give you continuous assistance in training your new battery maintenance personnel, establishing good preventive maintenance procedures, and checking efficiency of charging methods . . . all in the interest of insuring that you get maximum long life from your Gould Batteries.

Ask for new booklet ". . . so you're going to buy an industrial battery" . . . Objective digest of what to look for. Write Gould-National Batteries, Inc., Trenton 7, N. J.

More Power to you from Gould

COBRA[✦] SHOES in
Save \$1401.66



The COBRA[✦] SHOE

Product of the combined research facilities of . . .

Westinghouse Air Brake Company

Specialists in Braking

Johns-Manville

Specialists in Friction Materials

RAILROAD FRICTION PRODUCTS

Sunshine Service

per passenger car per year

SEVENTEEN CARS on a crack passenger run in the South were equipped with Cobra Shoes. Here are the results for average yearly mileage of 300,000 miles per car compared with a companion train equipped with cast-iron shoes:

1. Cobra shoe life—38,095 miles per shoe
2. Cast-iron shoe life—7,500 miles per shoe
3. Wheel life with Cobra Shoes—133,000 miles per turning
4. Wheel life with cast-iron shoes—77,000 miles per turning

The excellent mileage of Cobra Shoes and the increase in wheel mileage between turnings, revealed dramatically by this train operation, produce these outstanding savings:

Yearly brake shoe savings per car \$ 867.66

*Yearly wheel savings per car \$ 534.00

Total savings per car per year \$1401.66

**Wheel savings based on wheel charges specified by P. C. Rules 21 and 22 and Rule 105, A. A. R. CODE of RULES for the Interchange of Traffic, effective January 1, 1957.*

MAKE THIS INEXPENSIVE TEST

Equip an entire train with Cobra Shoes. Keep accurate records of brake-shoe costs and wheel-turning costs. Compare them with your present costs. You'll find that Cobra Shoes are one of the best possible investments you can make for quick return and continuing savings. Write for complete information to Railroad Friction Products Corporation.



Important facts about the COBRA* SHOE

1. Friction value is stable.
2. High friction value, permitting low shoe forces and simplified rigging, contributes importantly to lightweight train development.
3. Stopping distances meet existing standards—wet or dry—cold or hot.
4. With braking performance matched, wheel mileage between turnings is increased 50% to 100%. Shoe mileage is increased 400% to 500%. Result! Savings up to \$1401.66 per passenger car per year!

**Registered U. S. Trademark
Composition Brake Shoe*

FOR RAILROAD CARS, LOCOMOTIVES AND RAPID TRANSIT CARS.

CORPORATION, Wilmerding, Pennsylvania

POINTED AT PROGRESS



Today, the rails of this country are pointed at the gateways which lead to international markets all over the world.

Meeting the challenge of American Industry, Railway Express has instituted its new *World Thruway* service. With affiliations in the major countries of the world, Railway Express now provides a single carrier, through bill of lading service to most destinations throughout the free world, assuring top performance in speed, dependability and economy to all shippers of import and export . . . both here and abroad.

Now Railway Express brings the railroads of this country together into a single overseas transportation service—moving toward great new traffic potentials.

It's all part of the moving picture—leading Railway Express to bright new horizons.





This is the sixteenth in a series of advertisements about the people of Standard.

Specialists in saving money for the roads...

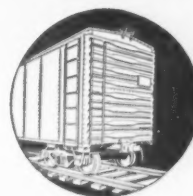
This is Standard's Wheel Truing team... men who specialize in helping you save *your* money.

That's team captain Mel McCracken standing with Don Pope and Jack Wilson seated, left to right.

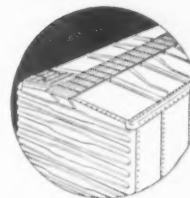
This is a team you should know. They service quite a product... Standard's Wheel Truing Machine which restores the contour to multiple wear steel wheels... in mounted pairs or without removal from locomotives,

passenger cars or spare trucks. Conditioning is done on the track in the running repair shop. There are no costly labor and equipment tie-ups and routine maintenance may be continued while the wheels are being turned.

When one of Standard's Wheel Truing team calls on you, you can be sure, as with all Standard representatives, that you'll receive the products and service that puts cars on the road paying their way.



Improved Dreadnaught Ends



Diagonal Panel Roofs



STANDARD RAILWAY EQUIPMENT MANUFACTURING COMPANY

General Office: 4527 Columbia Ave., Hammond, Ind. • New York • Chicago • St. Paul • San Francisco
Standard Railway Equipment Manufacturing Company, (Canada) Ltd. Sun Life Building, Montreal

9 out of 10 house cars
now in operation on
America's railroads are
equipped with Standard
Ends and Roofs.

THE RAILROADS BIG JOB . . .

Keeping 'Grade A' Cars Grade 'A'

Whether box cars can be kept in "A" condition by constant work or are built to stay in that condition, railroad mechanical departments must devote a big slice of their man-hours to upgrading freight cars. Shippers do not always get suitable cars, to be sure. While realizing that responsibility for this performance rests most directly on the mechanical departments, these officers stress that even the best construction and materials are of little value if the best cars are indiscriminately placed for the poorest loads. Even with constant attention to the upgrading problems, it actually is difficult to measure and appraise the results.

The cost of repeatedly working a freight car on a light repair track is causing considerable study of a most basic problem: Can cars be built which will stay in "A" condition permanently?

No one will say such a car can be built; and most people agree that the closest approaches to this goal cannot be economically justified. In the face of rising labor and material costs some railroads are making a start. A more immediate problem is the perennial one of providing proper cars now. A Railway Age survey of 35 mechanical

department officers shows how railroads are handling the upgrading problem today, and how they are looking for the solutions to this problem for the years ahead.

Upgrading ranges from a minimum of rendering box car interiors clean and tight to elaborate operations which put the entire car in first-class condition. Some lines define the addition of special loading devices, lading anchors and other equipment as upgrading. On different railroads upgrading covers the spectrum between clean-out track operations and back-shop rebuilding.

"Bad order ratio is meaningless as applied to box cars," concluded Mr. Brosnan, "because that ratio might be as low as one per cent but all the cars might be rough freight, providing very few loadable box cars. A better and certainly a more revealing ratio for box cars might be the rough-freight ratio."

What Is Done Today?

Cleaning cars and making their interiors tight and smooth—that is box car upgrading for many people. Cleaning and elimination of contamination are major jobs, and several railroads recognize that all too frequently the only solution for contamination must be replacement of part or all of the lining and flooring of cars.

Some railroads report that considerable work is necessary to make doors, sides, ends and roofs watertight. Smooth interiors are produced by removing nails and splinters, and patching holes in sides, ends and floors. Most railroads display a preference for standard lining lumber even for the patching associated with the simplest upgrading. Plywood is the second most popular material. The philosophy with these materials apparently is that cars so repaired will not be back on a repair track at the end of the next trip.

The special paper lining materials and the plastic fillers and liquid compounds were termed by three users "good for grain cars," "most economi-

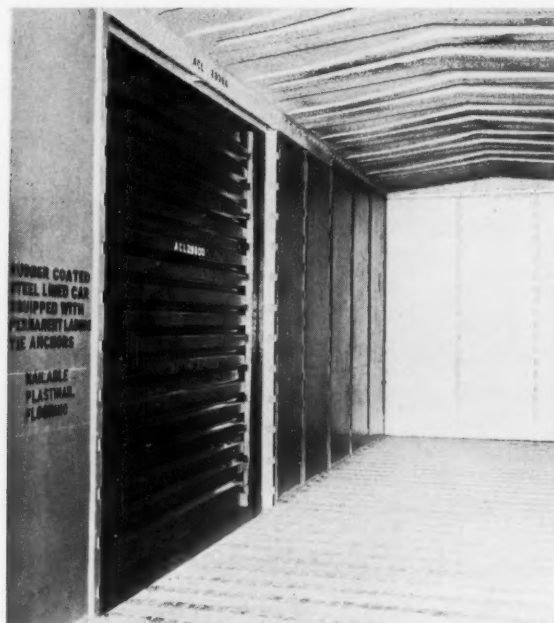
Nobody Wants Low Grade Cars

Even with all the time and effort which must be expended in these activities, it is difficult to get a quantitative or qualitative measure of the results. D. W. Brosnan, vice-president—operations of the Southern, spelled out this problem for the Railway Systems & Procedures Association over two years ago when he said, "Few commodities will now load in rough-freight box cars. Shippers of lumber, brick, clay, cotton and many other commodities formerly content with rough-freight box cars will no longer load them. They demand Class 'A' cars, and nothing less than 'B' will satisfy them.

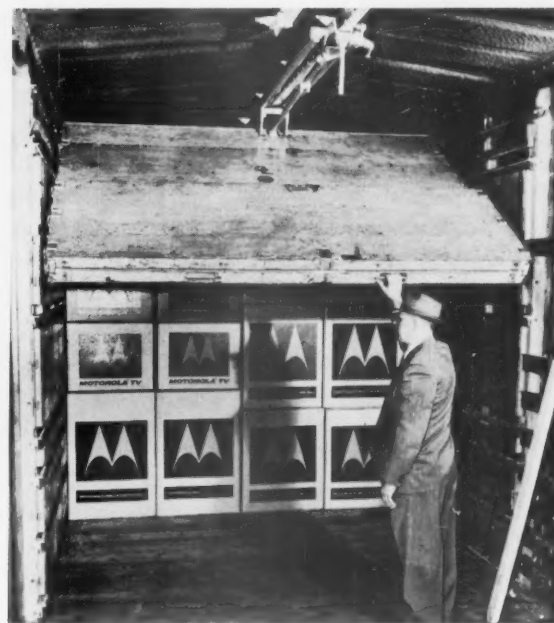
"From some checks made of all empty box cars passing our terminals, we found the break to be about 55 per cent rough freight, 33 per cent

Class 'B' and 12 per cent Class 'A'. Of course, these were not all our cars; most of them were of foreign ownership—the bulk of our cars being on other railroads. When it is considered that about 80 per cent of the lading offered today demands Class 'A' and 'B' cars, the disproportion between loading offered and cars available is clearly evident.

"The tendency," Mr. Brosnan continued, "is for these low grade, unneeded cars to drift uselessly back and forth, and from road to road. . . . The business could be moved with a much smaller fleet of cars in good repair. Expensive cross hauling, yarding with wasted switching, could be wiped out. The problem of keeping track of and supplying empties for loading would be greatly simplified. . . .



STEEL-LINED box cars of the Atlantic Coast Line have metal lining panels welded and locked in place. Bonded to lower surface of each panel is a Neoprene sheet 36-in. high. Car has lading anchors and Plastinail floor. Sliver- and vermin-proof interior arrangement serves to strengthen the car structure.



PARTITIONING and load-locking Evans "Quick Loader," recently developed, is typical of devices to protect lading and at the same time make it unnecessary to damage car interiors to secure these loads. Many railroads are showing increased interest in lading anchors, "DF" loaders and similar devices for their existing cars.

cal method of upgrading floors for any purpose," and "satisfactory for minor patch work." Major objections to some of these materials have been cost and lack of permanence. Nearly half of the roads reporting indicated that they use paper grain doors.

Nearly every railroad reported that upgrading is a year-around operation, and that most repair tracks do work classified as upgrading. Some lines find that they must vary their upgrading to meet the demands of seasonal movements. Very few railroads are able to predict the number of cars which will have to be upgraded during a year.

Most railroads are now strengthening the structures and floors of existing cars to make them meet today's more severe demands. End linings are being reinforced with steel and heavier lumber; and a sizable number of railroads are now applying steel linings to box cars. Among the appliances being added to cars in service to make them better, and to decrease the necessity for their incessant visits to repair tracks for upgrading, are the following: lading anchors, "DF" loaders, compartmentizers, Nailable Steel Flooring, floor protector plates, threshold plates, journal lubricators, roller bearings, rubber draft gears and ride control.

What Will Be Done?

It appears that the consensus is that better original construction will reduce but not eliminate the necessity for upgrading. One line reports, "with the widespread misuse of high-grade equipment today, we do not know of any method which will keep a car in 'A' condition permanently. However, a heavier end lining and decking, Nailable Steel Flooring, lading anchors, door post protection and other features tend to keep box cars in 'A' condition for a considerably longer period."

Another mechanical officer stated, "We are building our new cars stronger in every way—such as heavier side and center sills, plenty of floor supports, stronger ends, rubber draft gears, steel wheels, and tight-lock

couplers." A third summarized his position by saying, "We have found no program which will keep our cars in 'A' condition permanently without incurring costs which we consider too excessive to be justified."

Determining the weak points in present designs and strengthening them in future designs can readily be justified, according to several officers. The added costs of better original construction are easily justified, it appears, if a car makes only two or three fewer visits to light repair tracks during a year. More than one mechanical officer emphasized that keeping new 'A' cars in that condition requires consistent cooperation between the operating, transportation and mechanical departments.

"To keep new cars in 'A' condition longer, or permanently, is a constant problem that requires the attention of everybody in the operating, transportation and mechanical departments. The car department classifies every empty car for the highest possible classification and sees that cars are marked for 'upgrading' when required. Our operating people are quite diligent in seeing that high class cars are placed for high class commodity loading—and that good cars are not placed for loading with a contaminating commodity."

—Superintendent Car Department

UNDERFRAME for a new 50-ft box car is placed on trucks at the UP shops in Omaha.



ARE NEW CARS ALREADY ON A . . .

Fast Ride to the Rip Track?

An operating officer flattens his palm on the wall 4 in. from the door frame and exclaims, "I've seen anchor plates nailed *that close* to a row of lading strap anchors!"

. . . Another willingly seeks new ways and new materials to upgrade car interiors. But he relines box cars with good old-fashioned wood because he finds "nothing better."

. . . Still another would sheathe box car interiors with steel plate and force shippers to use permanent strap anchors for lack of a place to drive a spike. He nods and shrugs when you mention what that would do to the weight of the car. . . .

These are some of the things you run into when you raise one of today's most provocative questions: How many trips will a box car make before it's sent to the rip track for new lining and floor? The universal answer: far too few.

But if you ask railroad men how to build cars better in the first place to postpone the bugaboo of "upgrading," they're likely to do as one operating vice-president did recently—throw up their hands and declare, "I only wish I knew!"

For by and large, operating and mechanical men believe that today's freight car is basically a sound, efficient machine. What bothers them is

that new cars show up on rip tracks, sometimes in a matter of weeks, with holes in the floor, lining punched out, door posts askew—all kinds of internal injuries reflecting treatment a car has had as well as the way it was built.

The problem, in the words of one midwestern operating officer, is this: How can you encourage shippers to load and block securely to keep damage claims down—and yet give them a car economical to build in volume, with an inside they won't—or can't—quickly splinter into uselessness?

The solution, apparently, hasn't yet been found to the satisfaction of all.

What Some Are Doing

The Milwaukee is practically armor-plating the inside of its new box cars—using Nailable Steel Flooring or perforated steel plates on top of wood decking; 3/4-in. steel extending up 4 ft from the floor; heavier doors and nailing strips.

The Illinois Central, on the other hand, with company shops capable of turning out 14 cars a day, spends less on both labor and material for a comparable car and prefers to keep as large as possible a fleet of relatively unadorned cars on the road.

The B&O spends more when a car is built—for gondola sides of 1/2-in.

instead of 3/8-in. steel, as an example—with the idea that better original construction will keep the car off the rip track longer.

These roads and others hardly mention freight car trucks, underframe and basic construction as candidates for better initial design. They talk instead about those parts of the car which are susceptible to damage during loading and unloading—floor, lining, door posts, doors, and the like. And each has its own method of correlating cost, weight, expediency—and the lethal effect on car interiors of fork-lift truck, crowbar and nail—to arrive at the optimum car.

Lest all necessity for upgrading seem to be laid at the feet of the railroads' customers, however, a comment which comes out of an eastern road bears close inspection. Perhaps a big part of the upgrading problem would solve itself, one operating vice-president suggests, if more high-grade cars were assigned exclusively to high-grade shipments.

Which brings into the upgrading limelight what many mechanical department men feel is the important role of the transportation department—that of seeing that good cars aren't carelessly downgraded, and made candidates for the rip track by loading of contaminating shipments.

SHIPPERS ASK RAILROADS TO . . .

'Upgrade' Upgrading of Freight Cars

SHIPPERS ARE DIVIDED about evenly on the effectiveness of the railroads' program for upgrading freight cars.

THE PROGRAM IS ADEQUATE, in general, at least in the sense that it has helped to improve the overall condition of the freight car fleet, in the opinion of about half of those responding to a nationwide survey.

IT IS INADEQUATE, either in quantity, in quality or in speed, in the opinion of a slightly larger, and much more vocal, number.

WHAT SHIPPERS REALLY WANT goes beyond the mere upgrading of existing cars to their rebuilding—or to the construction of new cars which will have greater all-round strength, particularly in the floors; wider doors; more built-in load securing devices, and, above all else, better riding qualities.

Freight car upgrading programs are helping to provide more shippers with more cars of the kind they want. But it will take a lot of new car construction, or major improvement of a lot of existing cars, to satisfy the desires of all shippers.

Those conclusions are based on the results of a survey conducted by Railway Age's associated monthly publication, *Railway Freight Traffic*, of a representative cross-section of industrial traffic managers working for all types of industry in all parts of the country. Replies, from approximately 25 per cent of the 200-odd shippers queried, were almost evenly divided between the 29 who consider the present upgrading program adequate, and the 30 who consider it inadequate either in quantity, in quality, or in time.

The weight of opinion, however, was more heavily on the negative side than the basic figures indicate, partly because those who consider the program inadequate were much more outspoken of the two groups; and partly because many of those on the affirmative side said their needs are limited, or thought they had been "lucky," or said they would really like to see the railroads do more than just "upgrade" cars.

Some shippers feel that railroads simply are not upgrading enough cars, and would like to see them extend the

program and maintain it on a higher level at all times. For the most part, however, dissatisfaction extends to the kind, rather the amount, of work which is being done.

Shippers as a group appear to have relatively little preference as to types of upgrading material, i.e., lumber, plywood, plastics, etc., but they display a pretty general dislike for any type of upgrading which leaves irregularities or patches of any kind projecting from either floors or walls of box cars. One traffic manager, for example, urged "removal of side wall cleats," while another emphasized his disapproval of "scattered flooring plates."

Car Ends Are Important

Replacement or repair of hardware on box car doors was mentioned by several industrial traffic men as a matter which should be included in upgrading programs, while two traffic managers, one representing a food packer and the other a gypsum company, said special attention should be given to straightening and squaring car ends. This was stressed particularly by H. H. Fisher, superintendent of freight claims for the California Packing Corporation at San Francisco, who wrote: "Upgrading is not adequate for canned goods. The primary source of damage is bowed end walls.

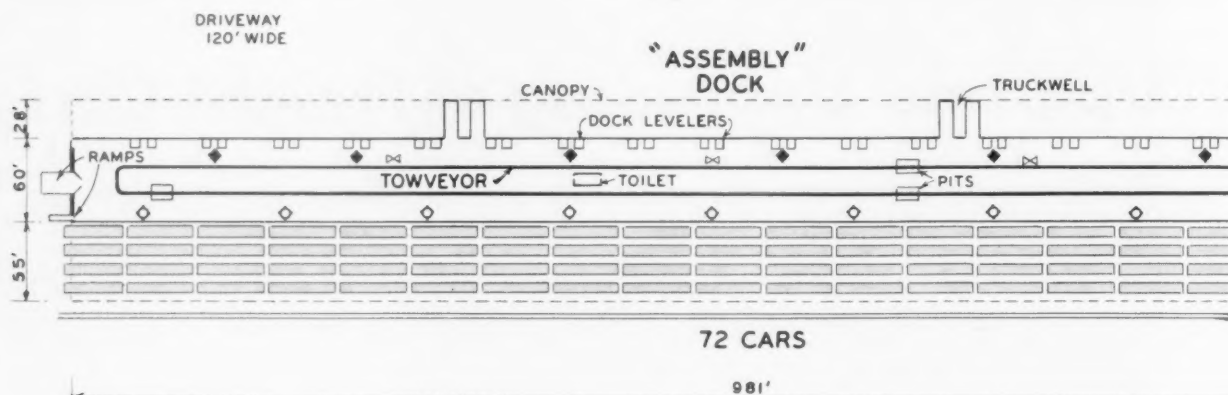
Replacing or repairing wood car lining only is not effective. To be effective steel framing on end walls should be squared and straightened. Few carriers do this in their upgrading."

Stronger flooring, to permit use of lift trucks in loading and unloading, is another point which appears to be of very general interest to a substantial number of shippers, while the increasing use of such mechanical materials handling equipment was advanced by several respondents as a reason for providing wider doors—at least 8 to 10 ft. Such wider doors were termed "an absolute must in today's operations" by J. J. DeLaney, traffic manager, American-La France Corporation, Elmira, N.Y., who added: "Any other action in box car construction or upgrading fails to meet requirements."

More built-in aids to secure loading also were urged by many. A number of shippers, for example, asked for more "DF" cars, or for cars with some form of compartmentizer, while several suggested that permanent anchor plates should be installed as a regular feature of all new and upgraded cars.

Make Studs Easy to Find

One of the men who made this latter suggestion—P. M. Gish, vice-president, traffic, American Standard, (Continued on page 49)



Tailor-Made Freighthouse Keeps

For Ford Motor Company the Detroit area is the source of large quantities of automotive parts shipped by rail to its assembly plants and part-distribution points throughout the country.

In recent years the work of transferring the parts from street trucks to railroad cars has been done at two freighouses leased from railroads. But a bottleneck had developed because these facilities had been outgrown and could not be expanded.

One of the freighouses used by Ford is owned by the Wabash. That road's engineers worked with the engineering department of Ford in designing a facility engineered to the manufacturer's operations. Result: A new \$1.7-million freight terminal that effectively removes the bottleneck.

The growing sales of its automobiles and trucks has given the Ford Motor Company a case of "growing pains" in trying to keep its assembly plants and division parts depots supplied with

parts. There just were not enough car spots at the freight docks it was using in the Detroit area to permit smooth transfer of parts from suppliers' trucks to freight cars. Also, there was con-

fusion and delay because of congestion on the transfer platforms.

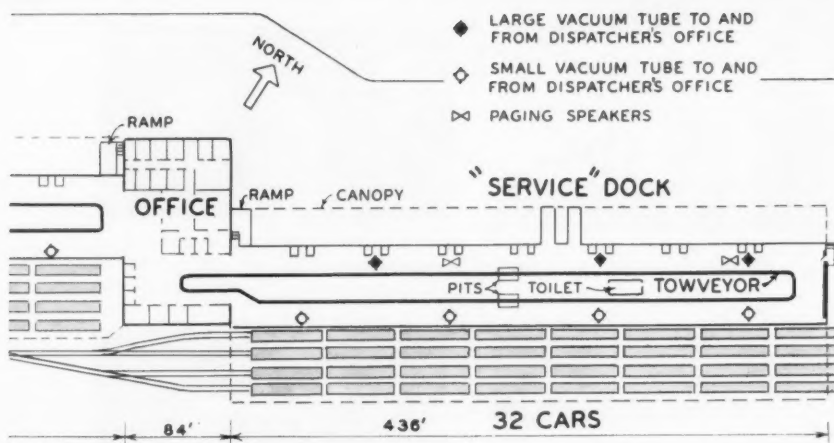
This situation was changed for the better when operations were begun recently in a new \$1.7-million freight-



WIDE PLATFORM of the "assembly" dock provides ample room for unloading trucks, temporary storage of loaded and empty tow trucks, Towveyor, and fork-lift truck maneuvering.



"SERVICE" dock's long roof trusses minimize column obstruction at platform level, completely span the four servicing tracks and carry a long canopy out from the dock over the trucks.



Auto Parts Moving

house on the Wabash at Detroit designed solely for handling these parts. Both the railroad and Ford now believe that this new Detroit Pool Car Terminal will satisfy requirements for some years to come.

What They Did

The engineers of the Wabash worked with Ford on the layout and plan for the new facility. When the plans and specifications had been approved by both parties, and the terms of a lease agreed upon, construction was started in July 1955 on a 15-acre site adjacent to the Oakwood classification yard of the Wabash in Detroit. The facility was completed late in 1956 and is now in full operation.

Ford wanted to separate the transfer operations involving parts for assembly plants from those for parts going to service depots. This was achieved by constructing two transfer platforms and separating them by a two-story office building. Both platforms are of concrete, 60 ft wide, laid on a sand fill at car-floor height. The "assembly" platform, west of the office, is 982 ft long. It is served by four tracks each having a capacity of 18 cars along the platform, giving a total of 72 car spots. The service-parts platform lies east of the office and is 437 ft long. It is served by a separate group of four tracks each having an 8-car capacity along the platform, giving a total of 32 car spots.

Ford also wanted to separate unloading and loading operations. This was done by installing a Towveyor

system on each platform for hauling four-wheel platform trucks. The Towveyor systems occupy the center third of the width of each platform. It was reasoned that this definite break between these operations would result in better performance of the work forces because the unloading force would become proficient in its work and the loading crews would become thoroughly familiar with the proper stowage of shipments. The loading personnel is assigned certain outbound doors on a permanent basis; hence a crew can be pin-pointed and held responsible for improper loading.

At each platform, there is a built-up roof on bar-joint trusses supported by four lines of columns, which provide a clear span across the four tracks, a 50-ft span over the platform and a truck-covering canopy projecting 28 ft from the edge of the platform. This canopy will cover all but the very long vans, which need no protection. Thus, unloading operations can continue without interruption in all weather conditions. Since the tracks serving each platform are also under roof, material is kept dry while being loaded, and fork-lift trucks have good traction.

How It Works

Drivers of incoming trucks carrying parts destined for an assembly plant submit to the "assembly" dispatch office their shipping documents and packing slips covering the material they wish to tender for shipment. The dispatcher processes the shipping documents by applying the necessary

DETROIT POOL CAR TERMINAL has separate Towveyor system for truck-unloading work and for car-loading operations. This separation permits assignment of crews to specific stations, with greater efficiency.

stamps, and assigns an unloading station to the vehicle.

On the "assembly" platform there are 17 truck-unloading stations providing a total of 86 truck spots. Each unloading station has two automatically operated, counterbalanced unloading ramps. When one of these is engaged by the tailboard of a truck it settles down to rest on the floor of the truck. This arrangement eliminates the need for portable dock boards. Two of the truck spots are wells for unloading open-top trucks carrying bulky items. They are each served by an overhead mobile hoist.

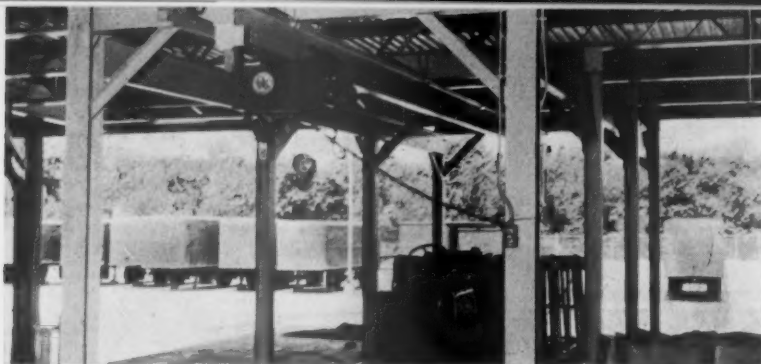
If the material in a truck is for a service depot, the truck driver is directed to the "service" dispatch office where he will be assigned an unloading station of the "service" dock. This platform has seven unloading stations, each having two automatic unloading ramps. It has a total of 36 truck spots, one of which is of the well type.

Unloading. Several features have been provided on both platforms to facilitate unloading operations. There are sealed-beam spotlights for throwing light into truck interiors at each truck spot. Each unloading station has a red signal light for summoning fork-lift trucks and an "intercom" unit connected with the dispatcher.

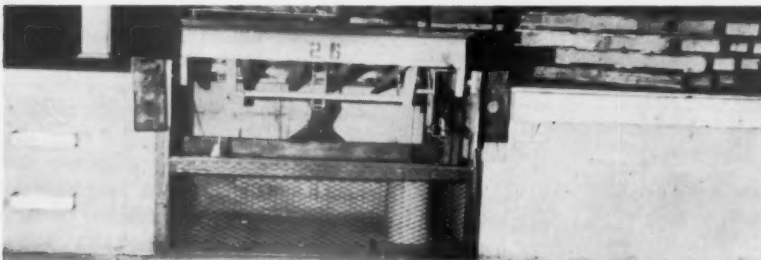
Receiving checkers unload the street trucks and place the material on tow trucks. Every third checker station is equipped with a vacuum tube outlet through which documents are sent from the dispatcher. These are spaced so no checker has to walk more than 50 ft for documents for his next assignment. Paging speakers are placed at intervals on both platforms.

As the unloading of each shipment is completed, the checker indicates the number of pieces received, initials the packing slip and places it in a sleeve on the Towveyor truck. He then marks a blackboard at the head end of the tow truck to indicate the outbound unloading station, places the tow truck on the line, and proceeds to the next shipment.

One Door for Each Plant. On the track side of the "assembly" platform there are 18 car spots available, each



TRUCK WELLS facilitate unloading bulky items from open-top trucks. Each well is served by a 2-ton overhead hoist and is flanked on each side by a platform extension.



SELF-LEVELING truck-unloading ramps are installed along one side of both docks. When trucks back against the dock-leveler, the ramp lowers to the truck floor.

VACUUM TUBE OUTLETS at every third checking station transfer documents to and from the dispatcher. These stations (left) are equipped with "intercom" and a red light signal to summon a fork-lift.

four cars deep. Ford and Mercury divisions together have 17 assembly plants, each of which is assigned one car door. This arrangement provides four cars side by side for each plant. The eighteenth door spot is used as an alternate for any destination requiring a fifth car, but this is seldom needed.

On the service-parts dock there are eight car spots four cars deep. Six of the eight doors at this platform are assigned two parts depots each. This provides each depot with two cars, one of which is for large material and the other for light. The cars at the other two car spots permit third-car loading during peak loads and also allow for future business expansion.

Loading. Cars farthest from the platform on the "assembly" dock are loaded first. Because there is ample platform space, material arriving by tow trucks can be held on wheels until needed.

Each outbound checker station on both platforms has a red signal light for calling fork-lift trucks as well as an "intercom" system and vacuum tube connected with the dispatcher. Special pull-down lights are provided at each car spot for lighting the interiors of the cars. When not in use, a counterbalance arrangement holds them suspended above car-top level and a contact switch turns off the power.

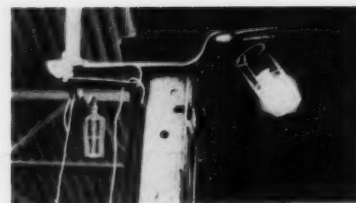
When a shipment is checked into a car, the outbound checker signs his name and stamps the car initials on all copies of the packing slips, indicating the location of the material in the car,

How Volume Grew

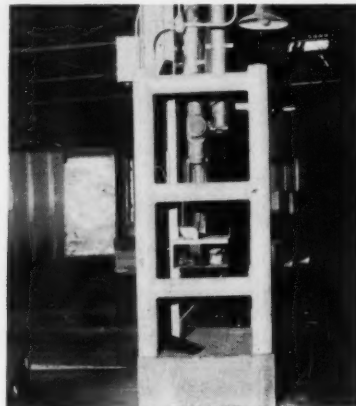
On June 30, 1947, Ford began using an old wood platform, known as the Wabash Poultry Dock, for loading parts. This facility had five car spots. By August of that year it became apparent that a much larger facility was necessary. Hasty plans were made and in December 1947, the Wabash Ford Dock was completed and occupied. It provided 23 car spots.

By the spring of 1948, it had again become evident that further expansion was necessary. In August 1948, the Harbough Dock on the DT&I was completed and occupied. This facility had an original capacity of 12 car spots. Further growth of the parts operations resulted in expansion of these facilities. The Wabash dock was enlarged to give 37 car spots and the Harbough dock to provide 44 car spots. Both docks had now been expanded to their physical limits.

But the facilities were still not large enough, especially under peak loads of production and service. Both docks were designed to handle 375 tons of freight per dock per day but peak schedules required twice that tonnage. Also, neither was designed for efficient operation of the many fork-lift trucks required to transport the materials from trucks to cars. The result was constant congestion.



PULL-DOWN lights are spotted at proper intervals so an outbound checker can illuminate car interiors.



and sends them through the tube to the dispatcher. One copy is placed in an envelope and affixed to the inside of the car door where it will facilitate unloading.

At both docks it was necessary for the same crews to unload trucks and load the cars. The result was that four or five crews were trying to load shipments in the same car at the same time, causing shipments to become intermingled within a car. Since all material had to be loaded in the order in which it was received, proper consideration could not be given to the best use of the available car space. Also, inbound trucks were being detained for unreasonable periods, causing unpleasant repercussions.

These were not the only objectionable features of these two docks. Both were wide open to the extremes of weather conditions. Since loading on multiple tracks in parallel was necessary, all cars on spot had both doors open to wind-driven rain, snow and sleet. It was not uncommon to find material near the doorways of cars covered with snow or saturated with rain.

Convinced that these facilities could not be improved upon sufficiently to eliminate their shortcomings, Ford began to make long-range plans for a completely new loading terminal to replace both of the existing docks. Representatives visited the most modern terminals in the country to get ideas on design and methods of operation.

How to Pinpoint Hot Boxes

A reliable and practicable hot box detector has been sought by many railroads. Recent tests on the Reading, C&O, N&W and Pennsylvania of a detector employing an infrared pyrometer have yielded very satisfactory results. Studies are under way to develop means for transmission from remote points of alarms originating in such a detector, and possibly for automatic control of wayside signals to stop the train involved.

An electronic automatic system for detecting hot boxes is in service on the Reading at "WX" tower, near Manville, N. J. This interlocking controls about 25 miles of line, so an operator can stop a train by signal indication if a hot journal is detected when the train passes the tower. By reference to a tape recorder in the tower the operator can tell exactly which journal activated the detector. When the conductor of the halted train calls in, the operator can pinpoint for him the location of the hot journal, telling him which side of what truck on which car is involved.

The equipment used in this system was developed and manufactured by Servo Corporation of America, New Hyde Park, N. Y., a well-known designer and manufacturer of infrared control systems for industry and infrared weapon systems for the Armed Forces.

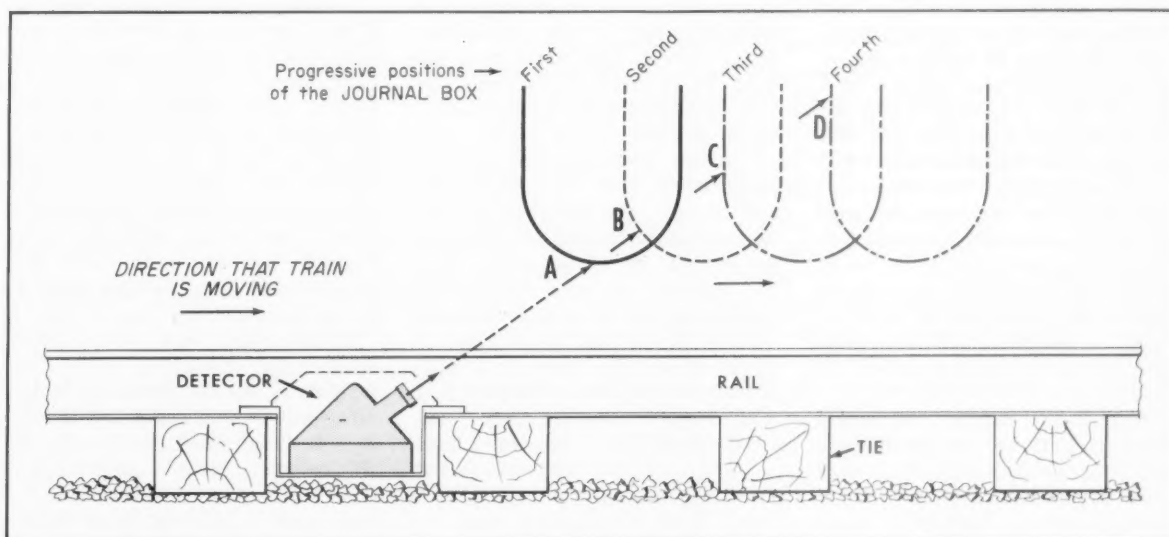
For years, other industries, such as steel mills, have used electronic devices, known as infrared pyrometers, to detect infrared rays being emitted from heated metal, and thus measure temperatures, although the pyrometer may be 10 to 15 ft or more from the metal. Tests on railroads proved that the temperatures of journal bearings on freight cars—from normal to "hot"—are within a range that can be detected by an infrared sensitive device located 3 ft to 5 ft from the journal boxes.

Basic Problems. To adapt these infrared pyrometers for detecting hot boxes on passing freight trains, some of the first problems were: (1) what part of the box should be "viewed," and (2) where should the pyrometer be located on the wayside to "view" the box.

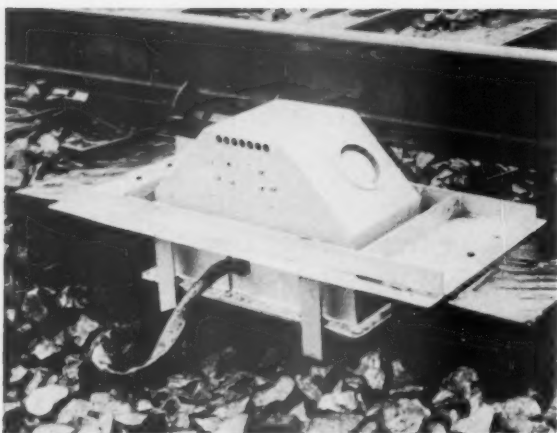
Because the top of the journal box has better metallic contact with the

journal bearing, it gives a better indication of the temperature of the journal than the lid. However, the top of the box is inaccessible to view from any angle. For best results, Servo engineers decided that a wayside pyrometer should be mounted between the ends of two adjacent crossties, with the center of the pyrometer lens about 16 in. from the gage line. Another pyrometer is placed at a corresponding position between the same two ties on the far side of the opposite rail.

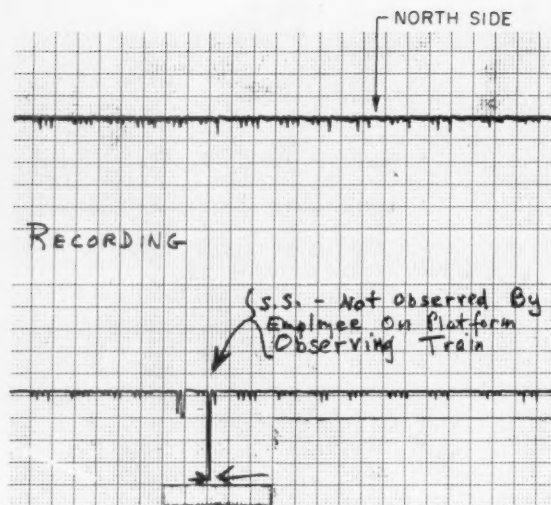
The center line of view of each pyrometer is pointed in the direction of the train movement, and at an angle 30 to 40 deg above horizontal. Thus, as a journal box recedes beyond the detector, the pyrometer "views" first the bottom of the box, and then the rear side progressively to the top. The pyrometer has a meniscus lens which covers an area of approximately 1 sq in. on the box. It therefore limits the



AS JOURNAL BOX MOVES from left to right, the "view line" of the detector first encounters the bottom of the box at "A", then, as box moves on to the right, the "view line" progresses up the side of the box, as at "B", "C" and "D."



INFRARED FROM JOURNAL passes through opening in case (above) to detector from which output is amplified to operate pen on moving graph paper (right) where hot box registers high "pip."



width of "view" to a 2-in. strip up the side of the box. This allows for lateral movement within the truck as well as between wheels and rails.

Split-Second Viewing. Each pyrometer receives infrared rays from any and all heat sources within its range of vision, all of the time a freight train is passing. These rays hit a sensitive element, known as the thermistor bolometer. It is essential to restrict the instrument's indications only to the journal box, excluding all other heat sources, such as hot brake shoes, hot wheel rims, etc. This is accomplished by automatically controlling the circuit to the graphic recorder, so that it functions only while the journal box is in range of the detector.

These controls are initiated by two wheel-actuated electromagnetic transducers, developed by Servo, each contained in a metal case about 4 by 4 by 8 in. Bolts hold them against the web of the rail on the gage side, with the top of the transducer about 1 $\frac{3}{4}$ in. below the top of rail. The instrument will not be touched by the flange of a wheel, even with maximum permissible tread wear, but as the rim of a wheel passes through the magnetic field of the transducer, an inductive "kick" is generated which indirectly energizes a relay in the circuits to the recorder.

When this journal box has receded beyond the "view" of the wayside pyrometer, the corresponding wheel passes over a second transducer that causes a second inductive "kick," which indirectly releases the relay. Two transducers on one rail control the circuits to the recorder for two

pyrometers, one on the outside of each rail. The timing is as close to being instantaneous as is required. These relays operate in about 3 milli-seconds. If one foot of forward motion is allotted for viewing of a box, the viewer is in focus, so to speak, approximately 0.023 seconds at 30 mph train speed. The detector system operates for any freight train speed up to 60 mph or higher.

How Hot Box Is Registered. In this installation on the Reading, the relative heat emitted by each and every journal box on every freight car in each train is registered on graph paper in a Twin-Viso automatic recorder made by the Sanborn Company, Cambridge, Mass., and modified by Servo Corporation. This recorder starts automatically when a train approaches, and is stopped after the rear of the train has passed the detector. The speed at which the graph paper moves can be adjusted.

The recorder has two pens, one controlled by the detector for the "south" side of cars, and the other by the detector for the "north" side. The pens are operated by galvanometer action, and therefore are very fast. As the graph paper moves, each pen records on a rectilinear chart. As each journal passes the wayside pyrometer a "pip" is made by the recorder. A journal at normal temperature makes a small "pip," about 2 to 3 millimeters high. A solid bearing journal that is hot enough to cause trouble will make a "pip" 15 to 20 millimeters high. An adjustment can be made to increase or decrease the relative height of all "pips." Thus this device indicates hot

boxes that could not be detected by an employee watching the train.

The boxes on freight cars equipped with roller bearings normally run at higher temperatures than on those with solid bearings, the differences being readily identified on the graph. The recorder also indicates the passing of locomotive journals, which also can readily be recognized.

This automatic graphic recorder is in the operating room in "WX" tower. When a train is passing, or has passed, an employee on duty checks the graph. If he notes a "pip" that indicates a hot box he can control a wayside signal to stop the train within the 25-mile territory controlled by the machine in this tower.

Looking to the Future. Thought is being given to means for transmitting hot box alarms from outlying locations to the dispatcher's office, whence directions can be issued to stop trains, if required. A further idea is to arrange equipment and circuit so that the indications now registered on the hot box recorder can be used indirectly to control a wayside signal automatically to stop a train, much like dragging equipment detectors are used on several railroads.

In order that such controls will function for solid bearing journals on freight cars, selective devices are in development to omit indications caused by roller bearings. A consideration in this respect is that in all instances, roller bearings are installed on both ends of an axle. Thus, if the "pips" are high for both the north and south indicators, such a reading could be omitted from further consideration.

Having accomplished the primary objective of developing the electronic hot-box detector to operate satisfactorily, controls may be carried into wayside signaling systems easily.

Weather Protection. The infrared rays from a journal box enter the wayside device through a 2-in. lens made of special material, called Servofrax, that transmits infrared rays. Too much dirt and moisture on this lens might interfere with proper operation. Therefore the pyrometer is enclosed in a protective metal case, with a circular opening,

about 2½ in. in diameter, which is normally closed by a movable metal disc, preventing rain and dirt from falling into the case during inactive periods.

Whenever a train approaches, this disc is opened automatically by a solenoid magnet device, controlled by impulses from the magnetic transducers, and it stays open until after the rear of the train has passed.

Dirt which falls from a passing train is swept along in the train's direction. Therefore this dirt is not likely to enter the 2½-in. opening of

the detector units, because these openings fall away from the approaching train. This is one of the reasons for "viewing" the boxes as they recede, rather than as they approach.

This installation of electronic hot-box detectors was made under the direction of George B. Blatt, chief signal, electrical and communications engineer of the Reading. Those phases of the project having to do with cars and locomotives are under the direction of W.A.W. Fister, superintendent of motive power and rolling equipment.

Upgrade 'Upgrading' of Freight Cars

(Continued from page 43)

Pittsburgh—also advanced the idea that stripes should be painted on interior walls of box cars to indicate location of vertical studs as a guide for installation of temporary anchor plates or blocking. Mr. Gish also would like to see hardwood door posts.

A significant number of shippers expressed a desire for faster upgrading. This point, in particular, was emphasized by W. C. Newman, general traffic manager, Archer-Daniels-Midland Company, Minneapolis, who said: "Most of our shipments are loaded from production, which requires that cars be available whenever plants are operating. A large share of the cars that are loaded are made available through unloads, and if such cars would be immediately upgraded by use of a reinforced plastic or resin material, it would be a great help in solving our problem."

While most of the shipper comments dealt primarily with box cars, some mentioned other types as well. A leather company traffic manager spoke particularly of gondola car decks as "being in poor shape," while flat car decks also came in for criticism from Eph. J. Davis, director of traffic, Caterpillar Tractor Company, Peoria, Ill. The traffic manager of a major brewing company said he would like to see refrigerator cars upgraded by installation of wider doors, perforated steel floors, and movable bulkheads.

Considered as a whole, the consensus of shippers appears to be that upgrading, while decidedly helpful in many cases, is by no means a complete answer to the whole problem of providing enough high-grade cars for damage-free freight service. This thought was well expressed by R. A. Cooke, manager, traffic department,

American Newspaper Publishers Association, New York, who wrote in part: "Railroads are making good progress, but upgrading is not the sole answer for prevention of damage to loading. . . . There has been little change in the design of box cars as a general proposition, when considered in the light of reducing oscillation and lessening impact shock. A program such as this cannot be accomplished over night but . . . the railroads, in the interest of better serving their customers, could embark upon a program of purchasing box cars which would meet modern shipping requirements."

Another opinion which appears to summarize concisely the expressed or implied views of most shippers answer-

ing the survey was that of R. E. Covey, traffic manager, American Sugar Refining Company, New York: "Certain individual railroads are doing an outstanding job in upgrading their equipment, replacing outmoded equipment, and providing good all-purpose cars. Total result is retarded by those carriers whose program is inadequate, fluctuating, and dependent on other carriers to furnish a car supply. The railroad system suffers from the inadequacy of suitable equipment and car shortages, while competitive transportation makes heavy inroads on the better revenue-producing traffic. This practice, along with irregular service, is causing serious financial difficulties for the railroad industry."

'Universal Language' Would Simplify Problem

The need for an "expensive upgrading program" could be "eliminated or greatly minimized" if carriers would adopt a uniform system of freight car carding and grading, in the opinion of R. R. Rabon, traffic manager, Campbell Taggart Associated Bakeries, Dallas, Tex.

"The basic fault," in Mr. Rabon's view, is that "lack of such a uniform system of carding and grading permits abuse to a carrier's equipment," which, in turn, leads to the need of upgrading.

Such a uniform system, he added, was proposed in 1947 and again in 1955, but "efforts were inadequate," and "practically none of the carriers adheres" to it. "Each has its own individual system. The result is that none of the carriers speaks the same language."

To support his suggestion, Mr. Rabon referred to a special report which he made to the executive committee of the Southwest Shippers Advisory Board two years ago. This showed that 61.6 per cent of cars then furnished for the loading of edible products in 11 board territories were substandard, i.e., were contaminated, infested, or odorous; had rough broken or jagged floors or walls; or were otherwise unfit for their intended use. Since that time, he advised, quarterly polls in Southwest board territory have shown no substantial improvement. "Figures have remained consistently the same or worse."

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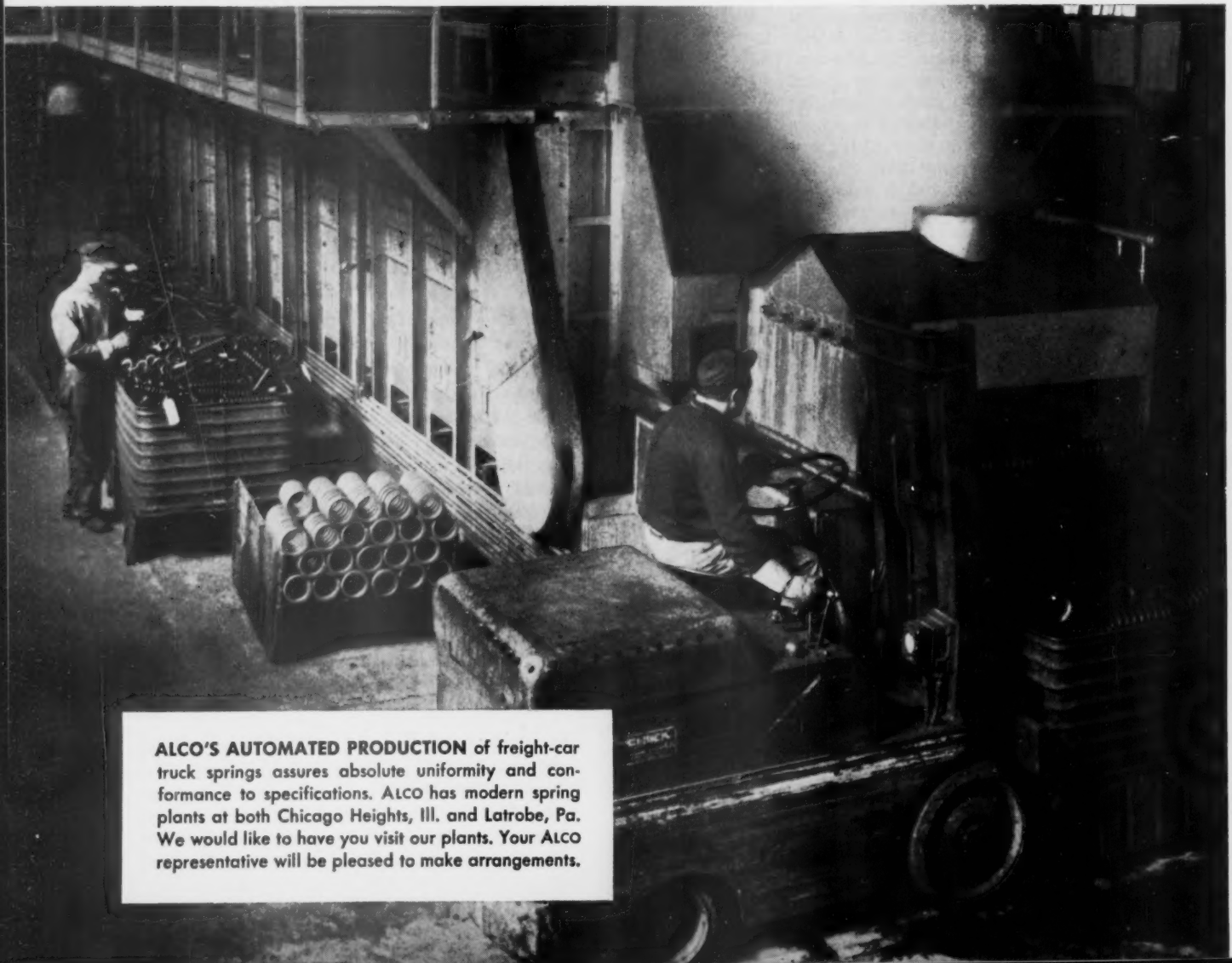


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ALCO'S AUTOMATED PRODUCTION of freight-car truck springs assures absolute uniformity and conformance to specifications. ALCO has modern spring plants at both Chicago Heights, Ill. and Latrobe, Pa. We would like to have you visit our plants. Your ALCO representative will be pleased to make arrangements.

TRUCKS

This ALCO guarantee
applies to these springs*:
(Standard AAR Designs)

1. 2-1/2-in. travel
2. 3-1/16-in. travel
3. 3-11/16-in. travel
4. 1915-D
5. 1936-D-2

*Except springs for
brine refrigerator cars.



FREIGHT-CAR TRUCK SPRING has ALCO date of manufacture stamped on coil. If it breaks within a period of ten years from that date, a new spring will be furnished free of charge by ALCO.

(Continued from page 17)

committee on Transportation and Communications began hearings March 28 on five counterpart House bills.

These House hearings also covered other proposed amendments to the Safety Appliance Acts (H.R.971 and H.R.1032), and three bills (H.R.182, H.R.3484 and H.R.4564) to require that unlighted railroad cars be equipped with reflectors or luminous material so they can be readily seen at night. Hearings are also set on:

H. R. 2808, to amend the fourth section so that railroads having circuitous routes may meet the competition of direct routes by publishing rates involving fourth-section "departures" without prior approval of the commission.

H.R.3233, to amend section 22 to provide that special rates to government agencies (so-called "Section 22 quotations") could be given by carriers only in time of war or national emergency; and to preclude the filing by the government of complaints assailing section 22 quotations.

H.R.3774, to require contract carriers to file their actual rates instead of minimum rates.

Through routes bills will also be considered in the House hearings which begin April 2. The railroad through-routes bill is H.R. 5384.

April hearings have also been scheduled by the Senate subcommittee to consider Senate bills which embody the commission's Section 4, Section 22 and contract-carrier-rate proposals. The bills are S.937, S.939, and S.943.

The passenger deficit of the railroads, "its causes and constructive suggestions for its curtailment," will also be considered by the Senate subcommittee at these April hearings.

Other Congressional hearings have been held on bills to carry out organized railroad labor's 1957 program for liberalizing the Railroad Retirement and Railroad Unemployment Insurance Acts (Railway Age, March 18, p. 11). Labor's program is embodied in S.1313, H.R.4353 and H.R.5551. Bills to implement the remaining 18 ICC recommendations are these:

H.R.3626 and S.942, to authorize the commission to impose penalty per diem.

H.R.3775 and S.940, to amend section 20b to add safeguarded provisions under which controlled or controlling stockholders of a railroad undergoing voluntary reorganization would be permitted to vote on its revamp plan; and to modify provisions governing solicitation of assents to reorganization plans.

H.R. 5825 and S.1677, to amend the Motor Carrier Act "to make clear that all for-hire motor carrier transportation, whatever its form, other than that specifically exempted, is subject to regulation."

H.R.5823 and S.1689, to limit the so-called agricultural exemptions to trucking from points of production to primary market.

H.R.5123 and S.1384, to amend Part II's provisions relating to contract truckers.

H.R.6084 and S.1720, to repeal Part



Spiked with Gold

For "outstanding achievement" as 1956 chairman of Detroit Community Committee, V. C. Palmer, (right), assistant to vice-president, Grand Trunk Western, is presented gold-plated spike by D. E. Smucker, president, Detroit, Toledo & Ironton.

II's provisions which permit truckers operating on intrastate routes, for which they have state certificates, to handle interstate business without an ICC certificate.

H.R.5661 and S.1458, to make it clear that the commission can issue motor carrier certificates for specific terms.

H.R.5662 and S.1460, to make it clear that the commission can grant temporary operating authority to motor and water carriers for more than 180 days.

H.R.5669 and S.1459, to repeal Part II's provision under which holders of bus-operating certificates are automatically authorized for special parties.

H.R.5331 and S.1461, to make motor carrier operating authorities subject to suspension or revocation for failure to comply with any regulation of the commission.

H.R.3625 and S.938, to prevent use by motor carriers of an arbitrary par value to evade commission jurisdiction over issuance of capital stock.

H.R.3773 and S.941, to add to Part III provisions for revocation of unused water carrier certificates and permits.

H.R.4391 and S.1383, to require certificates of convenience and necessity for entering the forwarder business.

H.R.4392 and S.1381, to make the exemption from regulation as forwarders apply only to those shipper associations which qualify as "bona fide."

H.R.4393 and S.1382, to tighten provisions of Section 409, which permits forwarders to enter contract-rate arrangements with motor carriers.

H.R.5329 and S.1385, to amend the Clayton Antitrust Act to provide that the commission's jurisdiction thereunder shall cover contract carriers as well as common carriers.

H.R.5330 and S.1462, to amend the Locomotive Inspection Act to make it more general and thus more flexible, and to eliminate provisions for appointment by the President of the director and assistant directors of locomotive inspection.

H.R.6085 and S. 1721 to provide that suits to set aside commission orders be brought against the commission instead of the United States.

Piggyback Called No Threat To Future of the Box Car

Piggyback is no "threat to the future of the box car," says R. Arthur Williams, president of the Standard Railway Equipment Manufacturing Company and chairman of the Railway Progress Institute.

"Piggybacking represents new business for the railroads or a return of business lost to highway haulers in previous years," Mr. Williams believes.

"One railroad president reports that 96% of the piggyback freight being handled by his line is business that formerly moved over the highways," Mr. Williams told the March 25 annual meeting of Standard's shareholders. "Railroad officers expect the box car to be the backbone of their freight business for a long time to come. It is inconceivable to them that piggybacking can begin to threaten seriously the future of the box car."

Mr. Williams said that piggybacking is "a natural and sensible marriage of modern facilities. It recognizes that intercity, long-haul movement of certain types of freight can most economically be moved by rail, fed by trucks. The future of piggybacking will be decided on economic grounds and the flexibility of the service and not on its ability to replace box cars or other types of cars."

Two Win First Prizes in Joseph T. Small Contest

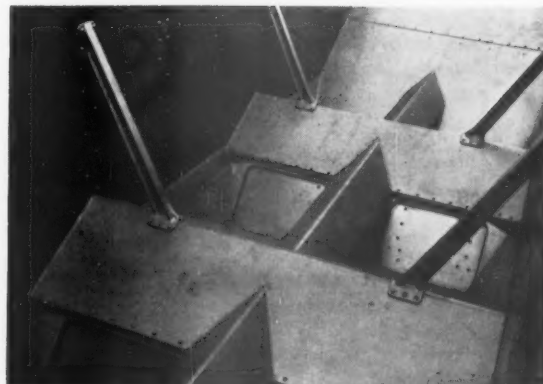
E. L. Tennyson, a professional engineer of Philadelphia, and Glen D. Larsen, a Northern Pacific draftsman at St. Paul, Minn., are each winners of a first prize of \$1,000 apiece in the Joseph T. Small Essay Contest administered by Railway Age. The subjects and terms of the contest were announced in Railway Age, July 9, 1956, p. 41.

Mr. Tennyson submitted the best paper on Subject No. 1: "What system of ownership and/or distribution will encourage the maintenance of an optimum fleet of modern freight cars?"

Winner of the second prize of \$250 for a paper on the same subject is John M. Mustanich, assistant supervisor freight protection, Merchandise & Station Service, Southern Pacific, residing at San Bruno, Cal.

Mr. Larsen won his award for an essay on Subject No. 2 of the contest: "What design of freight car, or combination of car and 'container,' will best meet the following combination (Continued on page 55)

On the Virginian coal rides on YOLOY E



Above—Interior view of the Virginian hopper car, showing how Yолоy E plates are welded and riveted in car construction.



Five hundred 70-ton hopper cars like this one, to be built in the Virginian shops this year, will use Yолоy E plates. These rugged cars will soon join fleets of thousands of others built of high strength steels, to haul the nation's coal from mines to market.

Yолоy E has high resistance to corrosion, abrasion and shock which results in lower maintenance and greatly lengthened life for hopper cars, box cars and other rolling stock.

The excellent forming and welding qualities of Yолоy E meet all requirements for railroad construction. More than 20 years of proven service on American railroads demonstrate every day the extra values obtained from the Yолоy Family of Steels.

THE YOLOY FAMILY

High in resistance to corrosion, shock and vibration, easy to fabricate, easy to weld.

YOLOY S

(Nickel-Copper)
High Strength Steel

YOLOY E

(Nickel-Chrome-Copper)
High Strength Low Alloy
Steel

Youngstown

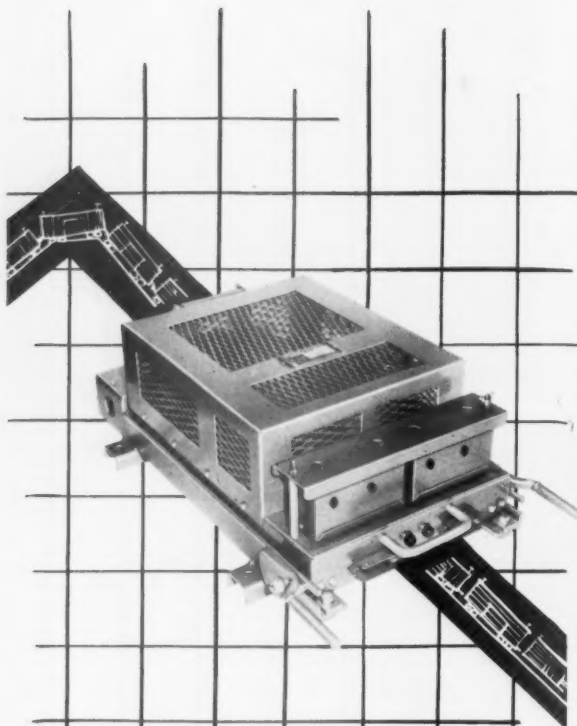


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Technical Tidings

Selected from April Railway Monthlies

Gum crossties now represent some 57% of total crosstie purchases. H. G. Carter, retired chief engineer, Central of Georgia, polled 22 railroads to develop information on their experiences with such ties. Results are set forth in *Railway Track & Structures*.

A check-in, check-out system, which controls signals independent of track circuit shunting, has been developed on the Lehigh Valley. *Railway Signaling & Communications* has the details.

If you are having trouble shipping electrical parts from change-out points to the shop, you will be helped by an article, "Importance of Proper Handling in Shipping Equipment," in *Railway Locomotives & Cars*.

Speed of construction, low cost, and durability—these were some of the factors taken into consideration when a manufacturing company recently built a tank-car coating shed using pole-type construction. Details, along with suggestions for use of pole construction in other types of railroad buildings, are in *Railway Track & Structures*.

Intercity telephone dialing system that connects 8,250 railroad telephones through 27 exchanges on the Southern Pacific, is explained in *Railway Signaling & Communications*.

Storekeeping has been simplified since the Southern Pacific began telling its suppliers of cleaning materials and solutions how to label their wares. Details are in *Railway Locomotives & Cars*.

One machine, operated by one man, cleans 96 diesel filters an hour on the Jersey Central. Before installation of the machine, only 33 units were cleaned each hour. *Railway Locomotives & Cars* tells how the improvement was accomplished.

How four railroads are making extensive tests of new types of aluminum line wire is described in *Railway Signaling & Communications*.

(Continued from page 52)

of characteristics: (1) Save time and money for shippers and receivers; (2) Control, or eliminate, damage to lading; (3) Make possible lower manufacturing costs; (4) Cut cost of maintenance; (5) Reduce time out of service for repairs; (6) Carry a wide range of commodities; and (7) Lend itself to rapid and cheap adaptation to changing needs of commerce?"

Second prize winner on this subject is R. C. Waehner, general manager, Distribution, Lever Brothers.

Judges of papers dealing with Subject No. 1 were Owen Clarke, of the ICC; James P. Newell, vice-president, Pennsylvania; and Robert S. Macfarlane, president, Northern Pacific.

People in the News

GREAT NORTHERN.—William A. Zimmerman appointed associate director of Univac systems and programming for the GN, St. Paul. Mr. Zimmerman was formerly in charge of Univac systems and programming, General Electric Company, Louisville, Ky.

Frank G. Sprain, auditor of overcharge claims, St. Paul, retired March 31, and the overcharge claims office consolidated with the freight receipts office.

ILLINOIS CENTRAL.—Edwin W. King appointed general agent, Louisville, Ky. Lawrence D. Saggus, assistant general agent, Atlanta, named general agent, Savannah, Ga., succeeding Mr. King.

Lawrence E. Brault, assistant to division engineer, Memphis Terminal, appointed division engineer there.

LITCHFIELD & MADISON.—James M. Moudry, vice-president and general manager, will have jurisdiction over all departments.

MONON.—Charles E. Ragland, assistant vice-president in charge of traffic, Chicago, elected vice-president in charge of traffic there.

NEW YORK CENTRAL TRANSPORT COMPANY.—John D. Phillips, executive vice-president of Buckingham Transportation, Inc., Rapid City, S.D., resigned to become a vice-president of NYC Transport Company, New York. F. E. Reynolds, assistant vice-president of Associated Transport, Inc., New York, resigned to become treasurer and comptroller of NYC Transport. C. W. Henkels, manager, Southern district, appointed assistant vice-president of operations, Syracuse, N.Y.

SANTA FE.—T. H. Linn, secretary to operating vice-president, Chicago, named safety supervisor, western and Colorado divisions, La Junta, Colo.

O. R. Hammit has resumed his duties as superintendent, Albuquerque division, Winslow, Ariz.

WABASH.—J. F. Kolar appointed division freight agent, Chicago, succeeding C. H. Hartmann, promoted (*Railway Age*, Mar. 4, p. 41).

On Subject No. 2, the panel of judges comprised Arthur C. Schier, vice president-traffic, General Foods Corporation; D. B. Jenks, president, Rock Island; and John W. Scallan, vice-president and general manager, Pullman-Standard Car Manufacturing Company.

Joseph T. Small, who donated \$2,500 for the prize-winning papers, is a nationally known analyst of railroad securities associated with the New York securities firm of Paine, Webber, Jackson & Curtis.

Mr. Small said he put up the prize money to get "as many people as possible—both in and out of the railroad business—to think hard about two vital questions concerning the all-important freight car fleet."

OBITUARY

Henry A. Scandrett, 80, retired president of the Milwaukee, died March 20 in Wesley Memorial Hospital, Chicago.

Raymond A. Streit, who retired in January 1950 as comptroller of the Monon, died March 23 at Swedish Covenant Hospital, Chicago.

William E. Carbone, who retired last July as general passenger agent of the Lackawanna at New York, died February 18.

Supply Trade

A. A. Helwig, chairman of the Standard Railway Equipment Manufacturing Company, announced his retirement at the firm's annual stockholders' meeting on March 25. No successor as chairman was elected. Mr. Helwig, who will serve the company as a consultant for the balance of 1957, has been an officer of Standard since 1937. He served as vice-chairman from 1948 to 1954, when he succeeded to the chairmanship after the retirement of Arthur A. Frank.

Ralph G. Greer, assistant manager of sales, Construction Equipment Division, International Harvester Company, has been appointed manager of sales succeeding I. P. Payne, who died January 14. Leslie J. Lange, general supervisor of sales development, has been named to succeed Mr. Greer.

Joseph T. Ryerson & Son, Inc., has appointed Scott Vrooman sales manager at Detroit, succeeding Harold E. Stavers, deceased. Bruce D. Clausonhus sales manager at Chicago, succeeds Mr. Vrooman.

The name of Spray Starting Fluid Company has been changed to Spray Products Corporation, to reflect expansion into other lines of manufacture and marketing beyond the basic product, Spray starting fluid.



Vinyl Coating

... applied in hot spray

A new hot spray vinyl finishing system is said to be particularly suitable for use on covered hoppers. The manufacturer states that it gives longer lasting protection, a higher glossy appearance, and, with two-coat application instead of three coats applied cold—makes savings possible.

The process, consisting of one primer coat and one finish coat, reportedly provides resistance against the corrosive effects of alkalis and most strong acids, also crude oils, greases, alcohols, or brine. The finish is said to be highly resistant to abrasion, impact, thermal shock, water and salt air.

Use of low air pressure with this system reduces fog in paint shops and deposits a much higher percentage of paint on the surface. Heat instead of a thinner, is said to give better viscosity control in periods of varying temperatures, and improve gloss and flow. Railroad shops reportedly can refinish equipment in one day, with the quick drying surfaces ready for stenciling in 30 min. to 1 hr.

The hot-spray system is recommended by the manufacturer, for use on the surfaces that have been sand-or shot-blasted, and properly cleaned so that they are free from rust, grease, oil or foreign material.

A primer is applied immediately following cleaning, after which the hot spray vinyl finish is applied, employing electric, hot water or steam heating equipment. *Pittsburgh Plate Glass Company, Dept. RA, 632 Fort Duquesne Blvd., Pittsburgh 22*•

"Car Shrinker"

... secures load in transit

This product consists of a pair of free floating bulkheads installed in each end of a box car. The bulkheads move away from the ends of the car when it is in motion, automatically shortening the loading space and holding the load tight, according to the manufacturer. Damage caused by momentum impact or continuous chafing is said to be eliminated.

While a freight car is en route, switching and transit movement tends to consolidate the slack left even by the best loading methods. The device uses the same forces that develop the slack, to move bulkheads toward the center of the car and keep the load firmly in place, the manufacturer says.

A locking device holds the bulkheads as they are extended. *Car Shrinker Company, Dept. RA, 1206 Nance St., Houston, Tex.*•



Box Car Upgrader

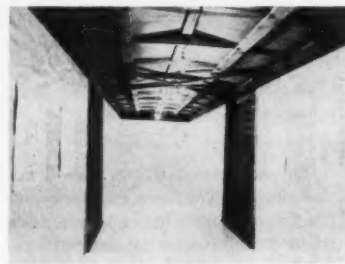
... seals cracks

Continental upgraders S-367, according to the manufacturer, can be applied to the floor of a 40-ft box car in average condition in 30 to 40 minutes, at a cost of about \$15.

This material, a composition of wood flour and resins, reportedly stain resistant, is applied in semi-liquid form with a floor broom. It is said to dry to a wood-like hardness in a few hours, bind floor

splinters together, seal small cracks, smooth rough floors, repel infestation, and hide and thoroughly seal grease spots or oil stains.

The manufacturer says once a floor is upgraded with this material, areas worn through later may be "spot patched," making it unnecessary to process the entire floor again. *Armstrong Paint & Varnish Works, Dept. RA, 1330 Kilbourn Ave., Chicago 23*•



Laminated Car Liner

... is easily cleaned

This factory-finished laminate of polyester resin and glass cloth is engineered for heavy-duty car lining service. It is said to provide permanent upgrading of box cars to meet the requirements of shippers of general merchandise and agricultural products.

Conolite, according to the manufacturer, combines high mechanical strength, impact resistance, chemical inertness and impermeability. Its mechanical strength is designed to protect box car walls from wear and impact, greatly reducing splintering, cracking and rupturing of wooden interiors. Dust and dirt traps cannot form.

Conolite's glossy non-porous surface reportedly prevents staining and penetration by greases, oils, and solvents and organic materials. It can be cleaned by wiping, steam cleaning or scrubbing. Odors will not be retained. *Conolite Division, Continental Can Company, Dept. RA, 205 W. 14th St., Wilmington 99, Del.*•

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- ✓ Resistant to cement and soda ash
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- ✓ Resistant to extreme atmospheric conditions
- ✓ Resistant to abrasion
- ✓ Outstanding adhesion, no primer needed
- ✓ High solids provide two coat metal protection

Get all the facts on this low cost PROTECTION.

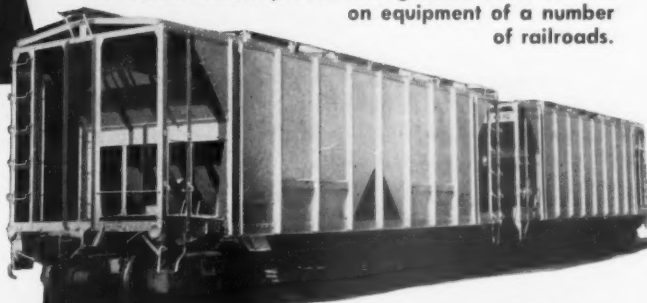
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Buffalo 14, New York

Low Cost, Positive Protection FOR COVERED HOPPER CARS

- EPI-FLEX Chemical Resistant Coatings provide a protective finish on covered hopper and tank cars that really "stand the gaff" when subjected to materials that easily saponify or eat through ordinary coatings. This fact has been proven through actual service tests on equipment of a number of railroads.



Has all the properties of a synthetic enamel plus effective chemical resistance. May be applied over an old surface without lifting and under extreme weather conditions. Furnished in Black, Red, Gray or your own special color.



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LONG LIFE
HIGH CAPACITY
FREE SWIVELING TRUCKS

MATERIAL:

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PITTSBURGH, PA.

When's the Best Time to Order Cars?

Recurrent shortages of freight cars are a condition that isn't going to be tolerated forever. There are two ways of putting an end to a car shortage. One is for the railroads to buy more cars. The other is for shippers to supply themselves with trucks and barges—which is exactly what a lot of them did in 1956. If shortages still persist, there is danger that shippers will eventually lose some of their traditional hostility toward government ownership.

Perfect Plan Not Yet Invented

There aren't any railroad men who disagree on the critical importance of this problem. But when it comes to solving it, opinions are widely divergent. Arthur Grotz proposed resorting to government credit as a way out of the dilemma. Apparently few railroad leaders agree with him—but even fewer of them seem to have an alternative plan to offer which would not encounter at least as much objection as his proposal.

A complete solution will come only with a change in the regulatory framework which will equalize the railroads' opportunities with those of other agencies of transportation—that is, when conditions are established which will let the railroads earn the 6-plus per cent that the utilities do, instead of the railroads' customary 4-minus per cent.

When an industry can be depended upon to earn an attractive return for investors, it never suffers a shortage of investment money—nor does its management ever lack the means and the incentive to supply the public with all needed facilities. Look at the tremendous growth since the war, in the demand for telephone and electric service. Yet the utilities have kept abreast of this demand, seemingly with little difficulty. Their record today parallels that of the railroads in the 'twenties, when railroad earnings were a lot better than now.

Meantime, while the railroads are waiting to be admitted to the happy earnings bracket of 6-plus per cent, aren't there any remedial steps they can take? Certainly there are—because it so happens that it is only a small part of total railroad plant that is in short supply (i.e., rolling stock—and motive power, perhaps not to so conspicuous a degree). To handle 10 per cent more business, the railroads don't have to add 10 per cent to their entire plant, as the utilities do, but only 10 per cent to the *mobile part* of their plant. (Of course, plant or yard improvements which increase utilization of cars and locomotives are the equivalent of additions to equipment supply.)

Our suspicion (and suspicion is all it is) is that the frequent failure of car supply to meet the needs results primarily because the railroads persist in *relying on*

THIS RELATES TO:



- 1—Challenging competition
- 2—Holding to high service standards
- 3—Increasing internal strength
- 4—Getting a higher level of earnings
- 5—Improving tools and methods
- 6—Seeking a friendlier environment

moral incentives instead of economic incentives to induce freight car purchase. An allocation by some formula of the number of cars a railroad "ought" to own never seems to appeal strongly to the fellow whose own estimate of the "ought" which applies to him is a much lower figure.

The other moral incentive which doesn't appear to be producing results is the uniform rate of per diem. Uniform per diem is a "moral" rather than an economic figure because it is a compromise opinion on what the user "ought" to pay—rather than a payment calculated to induce people looking for profit to provide an adequate supply of cars.

If railroads were permitted to charge whatever car rental a free market would determine—in times of a car shortage—there would be some of them who would be willing to go into the car-owning business as a profitable side-line. To establish a completely free market in freight car rental would probably be a more drastic step than necessary. Nevertheless, something a little nearer to a free market than the present system—where rental is uniform for equipment varying in value by 300 per cent or more—might work better than what we have now.

Imperfect Solution Better Than None

This paper is not going to get dogmatic and proffer a solution to the car supply problem—which a lot of smart and experienced railroad men haven't yet been able to solve. But it probably would not be amiss to ask a question or two, namely:

If Arthur Grotz' plan of getting the government into the act is "out"—then what alternative is there? Isn't an imperfect plan which, nevertheless, can get approval and start to producing an adequate supply of cars, plainly preferable to prolonged delay? If the railroads wait until they can agree on a perfect plan, the opportunity to get materials for an adequate program may disappear again, as it so often has in the past. The time to order cars is when they can be built.

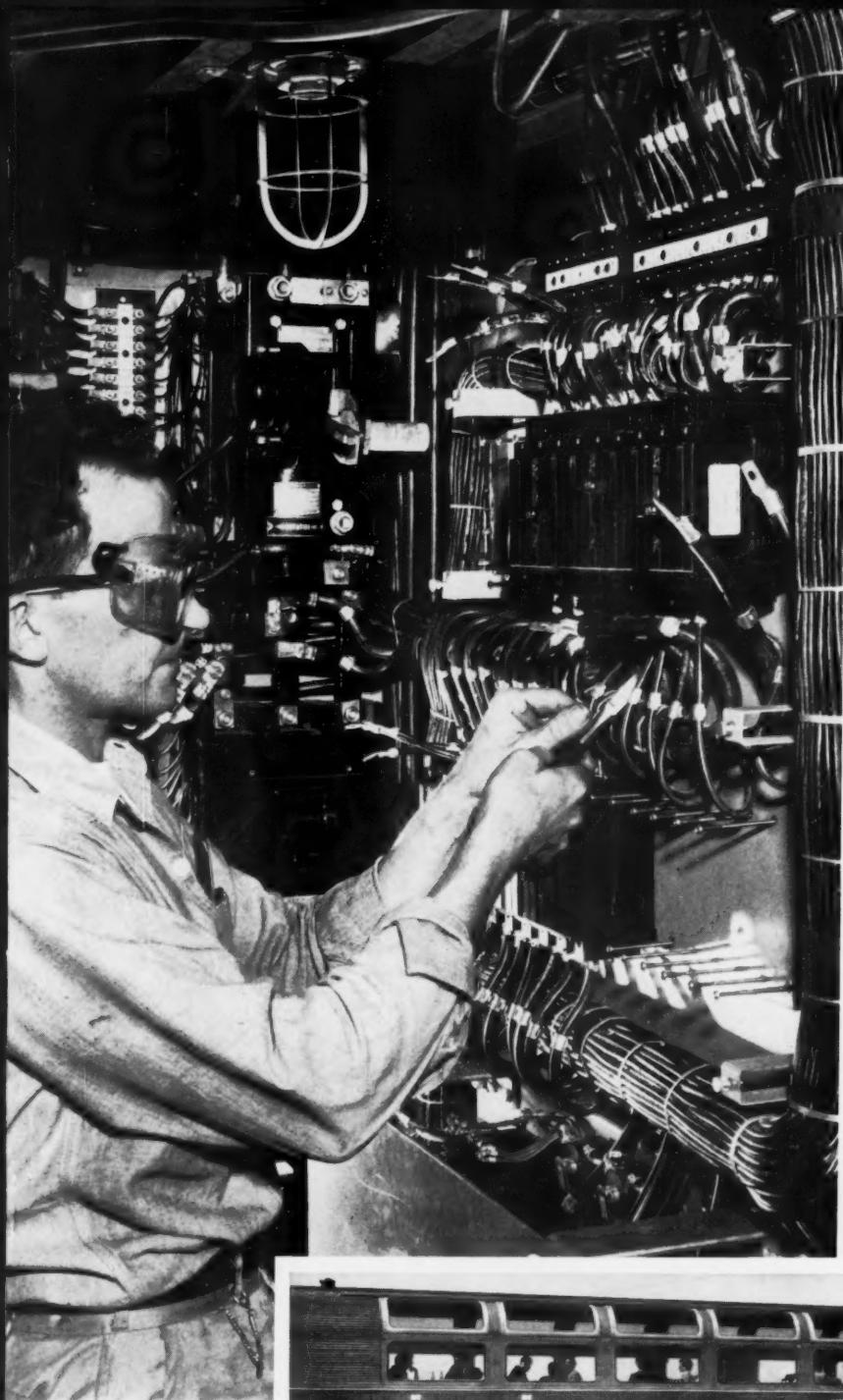
Santa Fe's new "Hi-Level" El Capitan is wired with Okonite-Okoprene

Heading out of the Budd shops and into transcontinental service has come the new "Hi-Level" El Capitan, an example of the Santa Fe's exacting standards for passenger comfort and convenience.

Many of the advanced features on this new luxury liner such as the service elevators, P.A. system, air conditioning and electric cooking, as well as the lighting, heating and other facilities, depend on electrical power. To provide long-lived circuit dependability, El Capitan is wired with Okonite-Okoprene car wire. This composite mold-cured insulation and sheath provides the electrical strength and mechanical toughness that Santa Fe considered necessary for this important new train.

The "Hi-Level" El Capitan typifies the reliance that Santa Fe, and over 100 other Class I railroads, place on Okonite cables for signal, communication, power, portable, car and diesel electric locomotive circuits that must not fail.

For further information about cables that have been developed specifically for railroad use, call your Okonite representative or write for Bulletin RA -1078 to The Okonite Company, Passaic, N. J.




This "Hi-Level" Sky Lounge is one of 47 new cars recently built by The Budd Co. for the Santa Fe's new El Capitan. Wired throughout with Okonite-Okoprene car wire, El Capitan is in daily service between Chicago and Los Angeles.



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